



***Oral Health Education
Resource Kit***

Kindergarten – 5th Grade



Dear Educator,

Enclosed please find supplemental resources provided through the West Virginia Department of Health and Human Resources Oral Health Program to aid your efforts in providing oral health education. The West Virginia Department of Education (WVDE) Content Standards and Objectives (CSOs) pertaining to oral health have been utilized in developing the presentations and materials. The CSOs have been placed at the top of each lesson to assist in ease of adaption in your classroom. The brief lessons cover core competencies, and several allow for elaboration into more advanced science and health CSOs. For additional information on oral health and learning, please find a fact sheet in the resource binder.

As a teacher, you are well aware of the direct connection between oral health and student learning. Students with preventable yet untreated oral health problems may have trouble concentrating and learning, have frequent absences from school, or develop permanent disabilities that affect their ability to learn and grow. Poor oral health has been related to decreased school performance, poor social relationships, and less success later in life.

To prevent any child from suffering due to oral disease, a basic understanding on how to achieve and maintain a healthy mouth is necessary. We are confident you will find these supplemental educational resources for oral health beneficial in addressing these critical essentials.

The educational resources have been designed to be cross-curricular in nature. The use of technology-based learning has been infused throughout the resources to further assist in implementation.

Thank you for the opportunity to provide your students with the knowledge of how to achieve a lifetime of healthy smiles!

Sincerely,



Jason Roush, DDS
West Virginia State Dental Director



Don E. Chapman, MS
Assistant Director, Office of Healthy Schools



**ral Health Education Resource Kit
Table of Contents**

| | |
|---|--------------|
| Introduction | pg 4 |
| Teacher Evaluation | pg 5 |
| Kindergarten Resource Guide At a Glance | pg 6 |
| Lesson 1-Tiny Teeth Do Big Jobs | pg 7 |
| Lesson 2-Keeping Teeth Bright and Healthy | pg 12 |
| Lesson 3-A Visit to the Dentist | pg 19 |
| Resource List | pg 23 |
| 1st Grade Resource Guide At a Glance | pg 24 |
| Lesson 1-Good Nutrition: Something to Smile About | pg 25 |
| Lesson 2-A Visit to the Dentist | pg 29 |
| Lesson 3-What Do Teeth Do For Us? | pg 33 |
| Resource List | pg 39 |
| 2nd Grade Resource Guide At a Glance | pg 40 |
| Lesson 1-YOU have the Power! | pg 41 |
| Lesson 2-Tobacco Pollution: Inside and Out | pg 49 |
| Resource List | pg 54 |
| 3rd Grade Resource Guide At a Glance | pg 55 |
| Lesson 1-What Keeps Your Mouth Healthy: Part 1 | pg 56 |
| Lesson 2-What Keeps Your Mouth Healthy: Part 2 | pg 62 |
| Resource List | pg 68 |
| 4th & 5th Grade Resource Guide At a Glance | pg 69 |
| Lesson 1-Be Smart About Your Smile | pg 70 |

Lesson 2-Sugar Amounts

pg 77

Lesson 3-Tooth Protection

pg 83

Resource List

pg 88

Introduction

The Content Standards and Objectives (CSOs) for West Virginia Public Schools provide the framework for instruction of the knowledge and skills needed for students to lead healthy lives. The goal of this curriculum is to 1) educate students about the impact of personal hygiene on oral and overall health and 2) provide an efficient means for educators to easily infuse oral health content into existing curricula.

Healthy children who are free of dental pain will learn more effectively in the classroom. The West Virginia Oral Health Program endorses the concept of emphasizing oral health as an integral part of total body health.

Through this series, the West Virginia Oral Health Program believes that oral health can be integrated throughout the child's education. These modules were developed to help meet the CSO's for the West Virginia Public Schools in grades Pre K–12.

As a result of incorporating the Oral Health Education Resource kit into the elementary curriculum, the student will be able to do the following:

- Recognize the relationship between personal behavior and personal health and have an understanding of oral health promotion and dental disease prevention.
- Demonstrate an ability to identify accurate oral health information and to be able to utilize this information to positively influence oral health and total well-being.
- Demonstrate a variety of oral health behaviors that promote healthy mouths, healthy bodies, and healthy communities.

The modules for grades Pre K–12 contain lesson plans which are designed in a "ready-to-go" format for the classroom teacher.

Each lesson plan includes:

- Title
- Objectives
- Related CSO(s)
- Leading questions to engage the students
- Possible activities for students to assess knowledge/skills
- Resources for teachers

A teacher evaluation/feedback form is included with the curriculum. This form can be faxed to the WVDHHR Oral Health Program. We appreciate your comments as you integrate the oral health education information into classrooms.

An additional resource list is also included.

Teacher Evaluation

Please complete the following questions concerning the Oral Health Resource Guide.

1. Did you find the Oral Health Resource Guide useful to incorporate oral health education into your classroom?

Useful Somewhat Useful Not Useful

2. Did you like the layout of the binder?

Yes No

3. Do you feel the material was age appropriate for the grade level assigned?

Yes No

4. How many times during the school year did you refer to the guide for lesson materials?

None 1-3 times 3 or more times

5. Would you like to see more technology resources available?

Yes No, technology available was sufficient

6. Would you recommend the guide to teachers that may not be utilizing the material?

Yes No

7. Do you plan to use the guide in your teaching in future years?

Yes No

8. Please list any additional comments/concerns you may have below.

Oral Health Education Resource Guide

Kindergarten Module: At a Glance

| <i>Lesson Title</i> | <i>Lesson Objectives</i> | <i>WV CSOs</i> |
|---|---|--|
| <i>Lesson 1-Tiny Teeth Do Big Jobs</i> | Upon completing this lesson, students will better understand: <ul style="list-style-type: none"> ● Why people have teeth ● How we use our teeth ● Characteristics of teeth ● Number of baby teeth | WE.K.1.02 Identify proper personal hygiene skills (e.g., brushing teeth, hand washing) |
| <i>Lesson 2-Keeping Teeth Bright and Healthy</i> | Upon completing this lesson, students should know: <ul style="list-style-type: none"> ● That having clean teeth is an important part of having a clean body ● Basic brushing techniques | WE.K.1.02 Identify proper personal hygiene skills. (e.g., brushing teeth, hand washing) |
| <i>Lesson 3-A Visit to the Dentist</i> | Upon completing this lesson, students will better understand: <ul style="list-style-type: none"> ● The role of the dental team in helping their teeth to stay healthy and strong | WE. K.2.01 Identify school and community helpers (e.g., teacher, policeman, school nurse, dentist, eye doctor) |

Lesson Plan 1

Title: Tiny Teeth Do Big Jobs

Key Learning Point: Teeth are important parts of our body. *Our teeth are important because they help us talk, eat, and give us beautiful smiles!*

Student Goals & Objectives:

Upon completing this lesson, students will better understand:

- Why people have teeth
- How we use our teeth
- Characteristics of teeth
- Number of baby teeth

WV CSOs:

WE.K.1.02 Identify proper personal hygiene skills (e.g., brushing teeth, hand washing)

Length of Lesson:

A minimum of 10 minutes to a maximum of 20 minutes is needed depending on the number of activities included.

Lesson Topics (with discussion points and questions)

Today we are going to talk about teeth. We may not think about our teeth very much, but they help us do a lot of important things.

Leading Questions:

1. *Why we need teeth:* Who can name something that we do with our teeth? (Discuss children's suggestions, which may include talking, eating or chewing, smiling, and singing. Have children talk, chew, and smile.) How about frowning? Do you need your teeth to frown? Let's test it out. Turn to your neighbor and give a great big smile...Good. Now, give your neighbor a very unhappy frown...H-m-m-m. I guess you do not need teeth to frown! But since most of you laugh and smile a lot, your teeth are very important!
2. *How teeth help us do things better:* We have had some good suggestions, but how do our teeth help us do these things? How do our teeth help us eat? (We can chew our food into little pieces. This keeps us from choking or getting a stomachache.)

3. *Characteristics of teeth:* What are your teeth like? Are they soft or hard? Do they have sharp edges, or are they round like a ball? Are they strong, or do they break easily? (Discuss answers.) So, our teeth are hard, have some sharp or cutting edges, and are strong. What would happen if our teeth were soft and weak? (Could not chew; they might break; it would be hard to talk.)
4. *The number and purpose of baby (primary) teeth:* Here is an easy question. When did you get your baby teeth? (When you were a baby!) Why do babies need teeth? (To learn how to talk and so that they can eat solid food.) Now I have a really hard question. How many baby teeth do children get? Any guesses? Children get 20 baby (primary) teeth.

Recommended Activities:

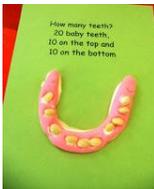
1. My Special Smile Activity Sheet: Give each child a copy of the “My Special Smile” face pattern provided at the end of this lesson. Have the children draw their smiles on the face pattern and then draw any other parts of their faces they wish to show (eyes, eyebrows, nose, and so on). Display the pictures in your classroom.
2. If available in your resource library, read *The Tooth Book* by Dr. Seuss to the children. Introduce the book and share an overview with the children. Then activate prior knowledge by asking children to tell what they know about loose teeth.



3. Incorporating the White Board: If whiteboard technology is available, review Sesame Street Healthy Teeth, Healthy Me. This project is a bilingual multimedia outreach initiative designed to empower children ages two to five years make healthy choices for their oral health and educate adults about the benefits of oral health care, having a dental home and taking care of primary teeth.

Website: www.sesameworkshop.org (type the word teeth in the search block, choose "Healthy Teeth, Healthy Me" and then choose "Healthy Teeth, Healthy Me Toolkit").

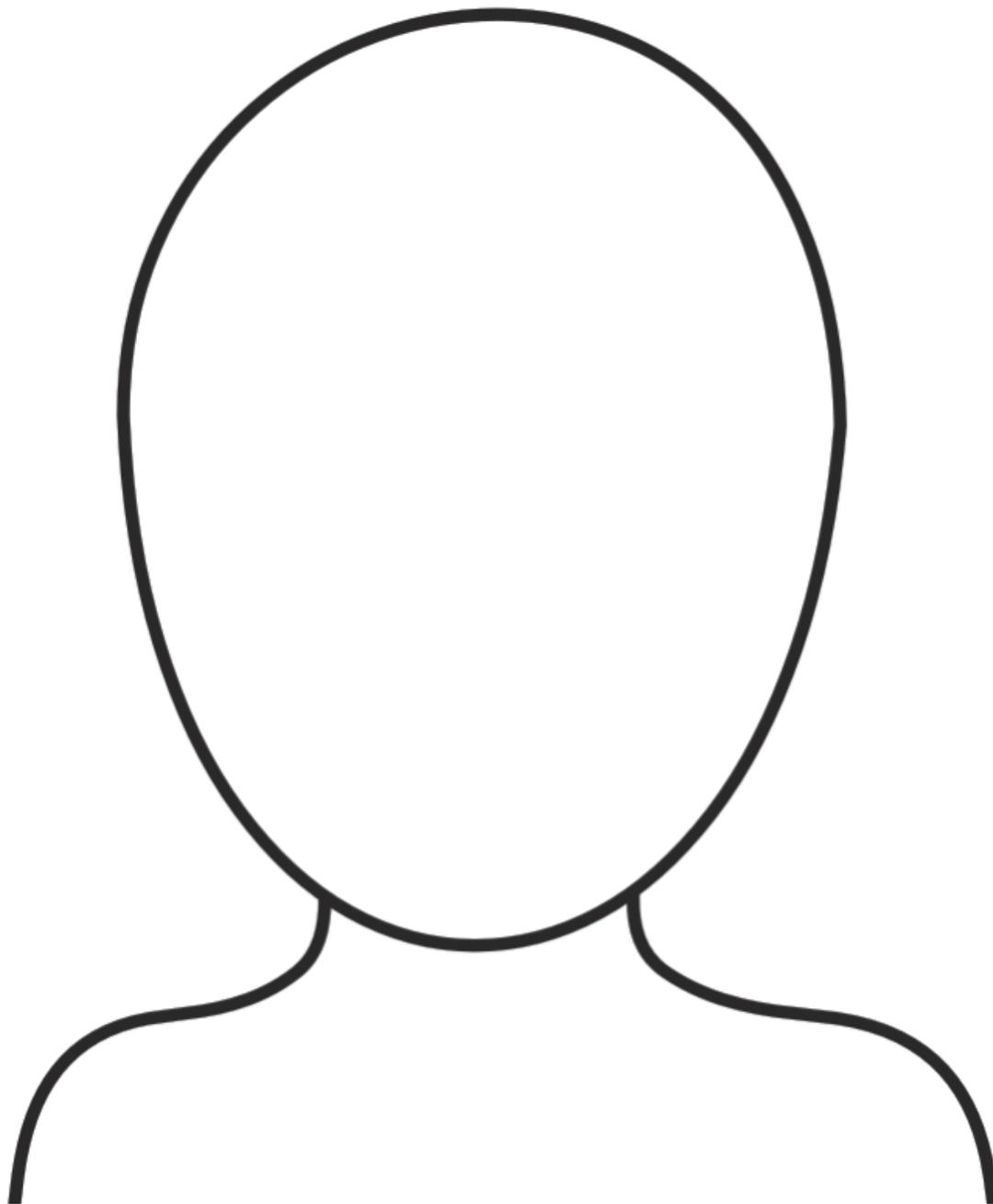
4. Primary Tooth Development Activity Sheet: Here is a picture that shows all of the teeth in the top of your mouth and in the bottom. Let's count them together out loud....Twenty teeth! That is a lot!
5. Our Pearly Whites: This activity was posted on Pinterest. The project is a hands-on activity and reinforces the number of primary teeth.



<http://www.preschoolplaybook.com/search/label/dental%20health>

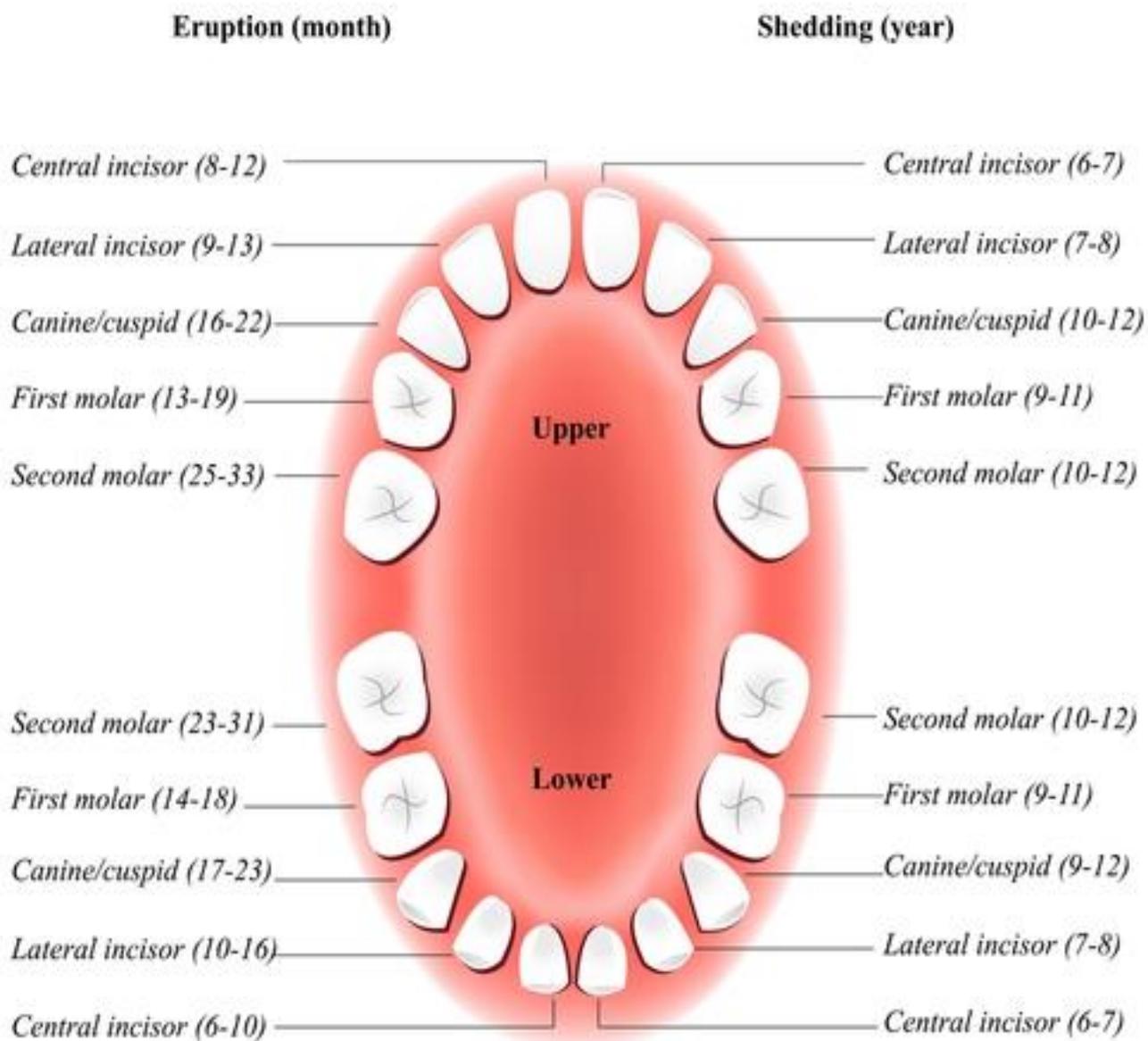
Name _____

My Special Smile



Teachers Guide : Primary Dentition Chart

Children dental chart



Lesson Plan 2

Title: Keeping Teeth Bright and Healthy

Key Learning Point: Having clean teeth is an important part of having a clean body.

Student Goals & Objectives:

Upon completing this lesson, students should know:

- That having clean teeth is an important part of having a clean body
- Basic brushing techniques
- Why is it important to brush your teeth
- How many times a day you should brush your teeth
- What can happen to teeth if you do not brush them every day

WV CSOs:

WE.K.1.02 Identify proper personal hygiene skills. (e.g., brushing teeth, hand washing)

Length of Lesson:

A minimum of 10 minutes to a maximum of 20 minutes is needed depending on the number of activities included.

Lesson Topics (with discussion points and questions)

Today we are going to talk about how cleaning our teeth help keep them strong and healthy.

Leading questions:

1. *Keeping our bodies and teeth clean:* What are some of the things you do to keep yourself clean? (bathe, wash hair, wash clothes) Why is it important to have clean hands, to take a bath, and to wash our clothes? (So you do not get sick; so you look and smell nice) How do you feel when you are clean? (Skin smells good, hands do not feel sticky, etc.) Can someone be really clean if their mouth and teeth are not clean? (No.) Why not? (Because a clean mouth feels nicer, your breath smells nice, etc.) Clean teeth and mouth are parts of a clean body.



2. *Brushing teeth:* What can you do to keep your teeth clean and healthy? (Brush your teeth.) How many of you brush your teeth? Great! How often should you brush your teeth? (Twice a day) What do you put on your toothbrush? Yes, toothpaste. Why do you use toothpaste? (cleans better than just water, gets the food off your teeth, makes your teeth stronger, and makes your mouth taste good) Those are all good answers. Does anyone know how much toothpaste you should put on your toothbrush? (Listen to a few suggestions) You might be surprised, but you only need a very little bit of toothpaste on your toothbrush — about the size of a little green pea. (Demonstrate putting a pea-sized amount of toothpaste on a toothbrush) I have a very important question. When you are brushing your teeth, what do you do with the toothpaste in your mouth? Yes. Spit out all the toothpaste! Do not swallow it. Toothpaste is for cleaning your teeth, not your stomach! Brush twice a day with fluoride toothpaste. Always spit out all the toothpaste. At night after you are done brushing, only drink water to keep freshly brushed teeth clean and healthy as you sleep.
3. *Brushing techniques:* Your mom, dad or another grown-up may help you brush your teeth, or maybe your dentist showed you how to brush. Move the brush back and forth gently in short strokes. Brush the top, front, and back sides of each tooth. (NOTE: Ideally, an adult will brush and floss a child's teeth until he or she is at least six years old. By age six or seven, children should be able to brush their own teeth twice a day – with supervision until about age ten or eleven, to make sure they are doing a thorough job. Since adults at home do not always supervise tooth brushing, you might want to suggest to your class that they ask a grown-up to watch them brush, so they can show how well they do it. Flossing demands more manual dexterity than very young children have, and children are not usually able to floss well until they are age ten or eleven, and even then they should be supervised.)

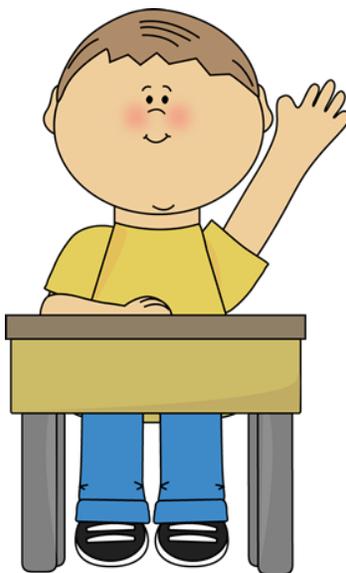
Brush your tongue to keep your breath fresh and clean.



Recommended Activities:

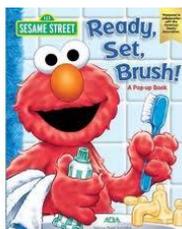
1. Make the Pledge: At the end of dental lesson have children raise their hand and repeat after you.

I promise



I promise to brush my teeth two times a day everyday
for the rest of my life.

2. How to Brush Activity Sheet: Here is a picture of one good way to brush your teeth. It says... (Show How to Brush and read instructions. Ask for questions and comments.) Move the brush back and forth gently in short strokes. Brush the top, front, and back sides of each tooth.
3. If available in your resource library, read Sesame Street's *Ready, Set, Brush!* to the children. Introduce the book and share an overview with children. Then activate prior knowledge by asking children to tell what they know about brushing teeth.





Incorporating the White Board: You may also wish to visit the Sesame Street: Healthy Teeth, Healthy Me series at www.sesameworkshop.org (type the word teeth in the search block, choose "Healthy Teeth, Healthy Me" and then choose "Healthy Teeth, Healthy Me Toolkit").

4. If available in your resource library, use models of large teeth to demonstrate proper brushing. Move the brush back and forth gently in short strokes. Brush the top, front and back sides of each tooth.

Check out a dental puppet from your Regional Oral Health Coordinator.



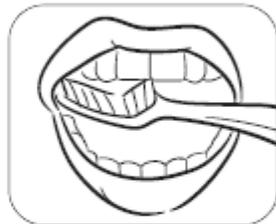
5. Count and Color Activity Sheet: This activity reinforces the correct amount of toothpaste children should use when brushing.
6. Oral Calendar Activity Sheet: This activity reinforces the correct amount of times children should brush their teeth.

Summary: Now we know how important it is to keep our teeth clean. We should brush two times a day to keep our teeth clean.

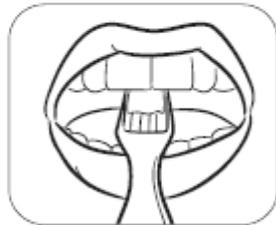
How to Brush



- Place the toothbrush at a 45-degree angle to the gums.



- Move the brush back and forth gently in short strokes.



- Brush the outer surfaces, the inside surfaces and the chewing surfaces of all teeth.



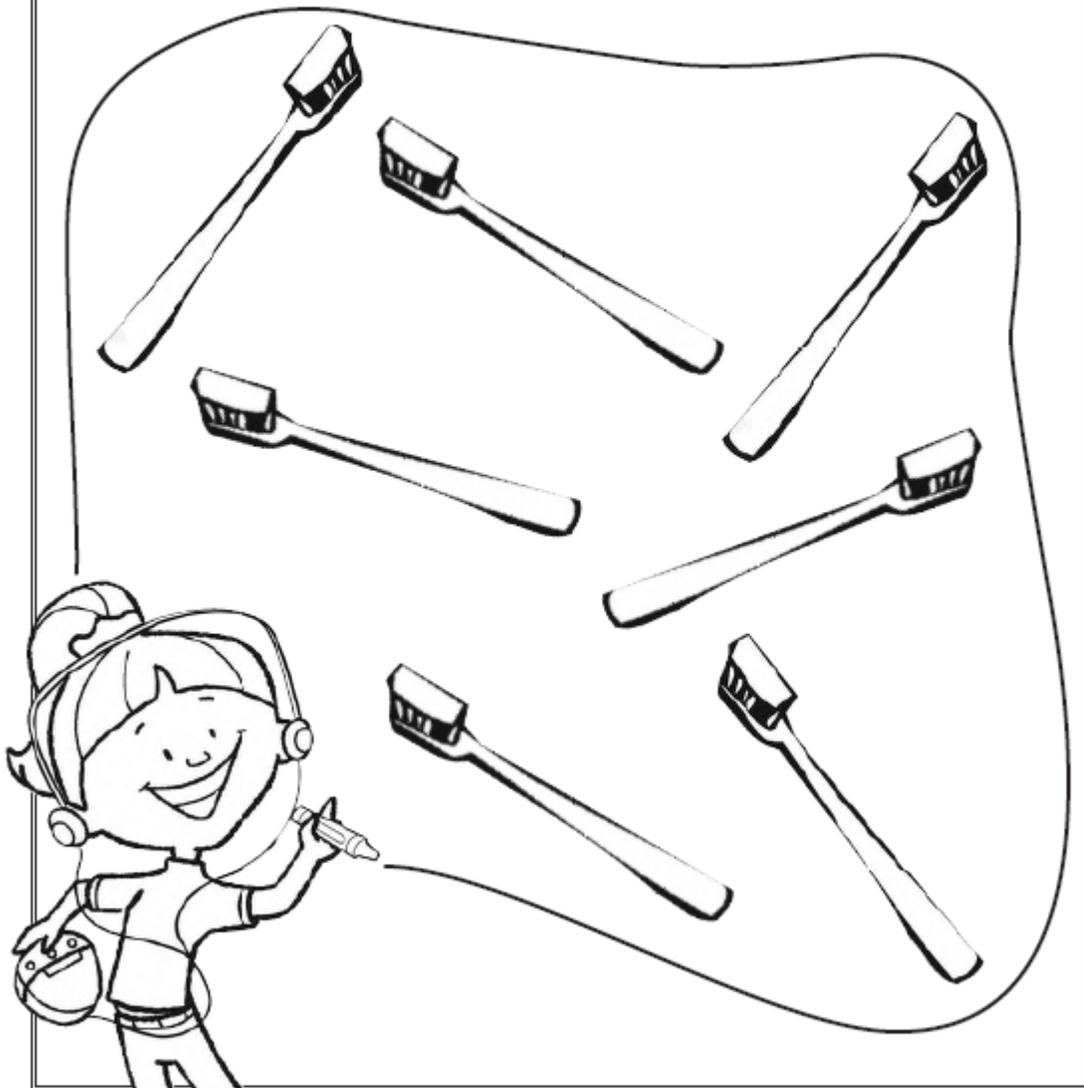
- To clean the inside surface of the front teeth, tilt the brush vertically and make several up-and-down strokes.



- Brush your tongue to remove bacteria and keep your breath fresh.

Count and Color

Chris has been very busy drawing pictures of toothbrushes!
Count the toothbrushes. Draw a pea-sized ball of toothpaste on each toothbrush.
Color the toothbrushes bright, happy colors!



ADA © 2005 American Dental Association. All rights reserved. Educators and dental professionals are permitted to reproduce and use this activity sheet solely in printed form. Any other use, duplication or distribution of this activity sheet by any other party requires the prior written approval of the American Dental Association.



Oral Care Calendar

Put a happy face in the box when you brush twice each day.

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | | | | | | |
| <input checked="" type="checkbox"/> | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



ADA. © 2005 American Dental Association. All rights reserved. Educators and dental professionals are permitted to reproduce and use this activity sheet solely in printed form. Any other use, duplication or distribution of this activity sheet by any other party requires the prior written approval of the American Dental Association.

Lesson Plan 3

Title: A Visit to the Dentist

Key Learning Point: The dentist and dental hygienist are our partners in caring for our teeth.

Student Goals & Objectives:

Upon completing this lesson, students will better understand:

- The role of the dental team in helping their teeth to stay healthy and strong

WV CSOs:

WE.K.2.01 Identify school and community helpers (e.g., teacher, policeman, school nurse, dentist, eye doctor).

Length of Lesson:

10 minutes

Lesson Topics (with discussion points and questions)

It is important to visit the dentist and dental hygienist!



Dentists and dental hygienists are people who care for your teeth. They check your teeth to make sure they are healthy. Always cooperate when a dentist and dental hygienist is checking your teeth. The dentist will help fix tooth problems that you may have. A visit to the dentist office is easy and fun. The dentist and dental hygienist help keep our teeth strong and healthy.

Leading Questions:

1. *Why it is important to visit your dentist and dental hygienist:* What is a dentist? (A doctor who takes care of teeth and mouths.) How many of you have visited your dentist? Why is it important to visit the dentist?

(To make sure your teeth stay healthy and strong.) What is a dental hygienist? (A person who cleans and takes x-rays of your teeth to help keep them healthy.)

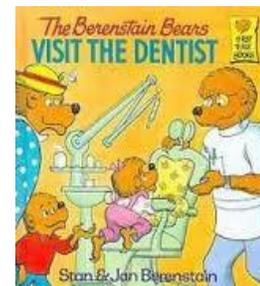
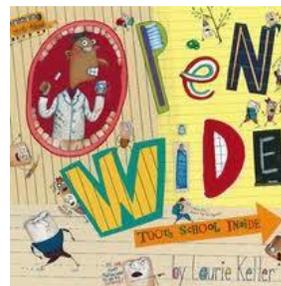
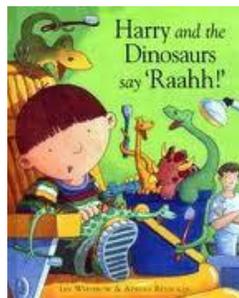
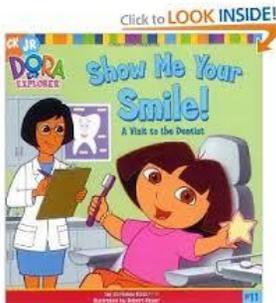
2. *The dentist's office:* What interesting things did you see in your dentist's office? (Discuss answers, which might include: the exam chair, special light, special tools, dental mask, gloves, etc.)

Your dentist and dental hygienist have all sorts of interesting things in the office. (Distribute Visiting the Dentist coloring sheets.) The special chair moves up and down so people of different sizes can sit in it, and the dentist can see easily into all their mouths. The light helps your dentist and dental hygienist see into mouths, too. They also have some other special things in the office. The little mirror lets them see your back teeth; the "feeler" tool helps the dentist count your teeth; the x-ray machine takes pictures of the inside of your teeth; the bib protects your clothing; and there is even a little hose to spray water into your mouth.

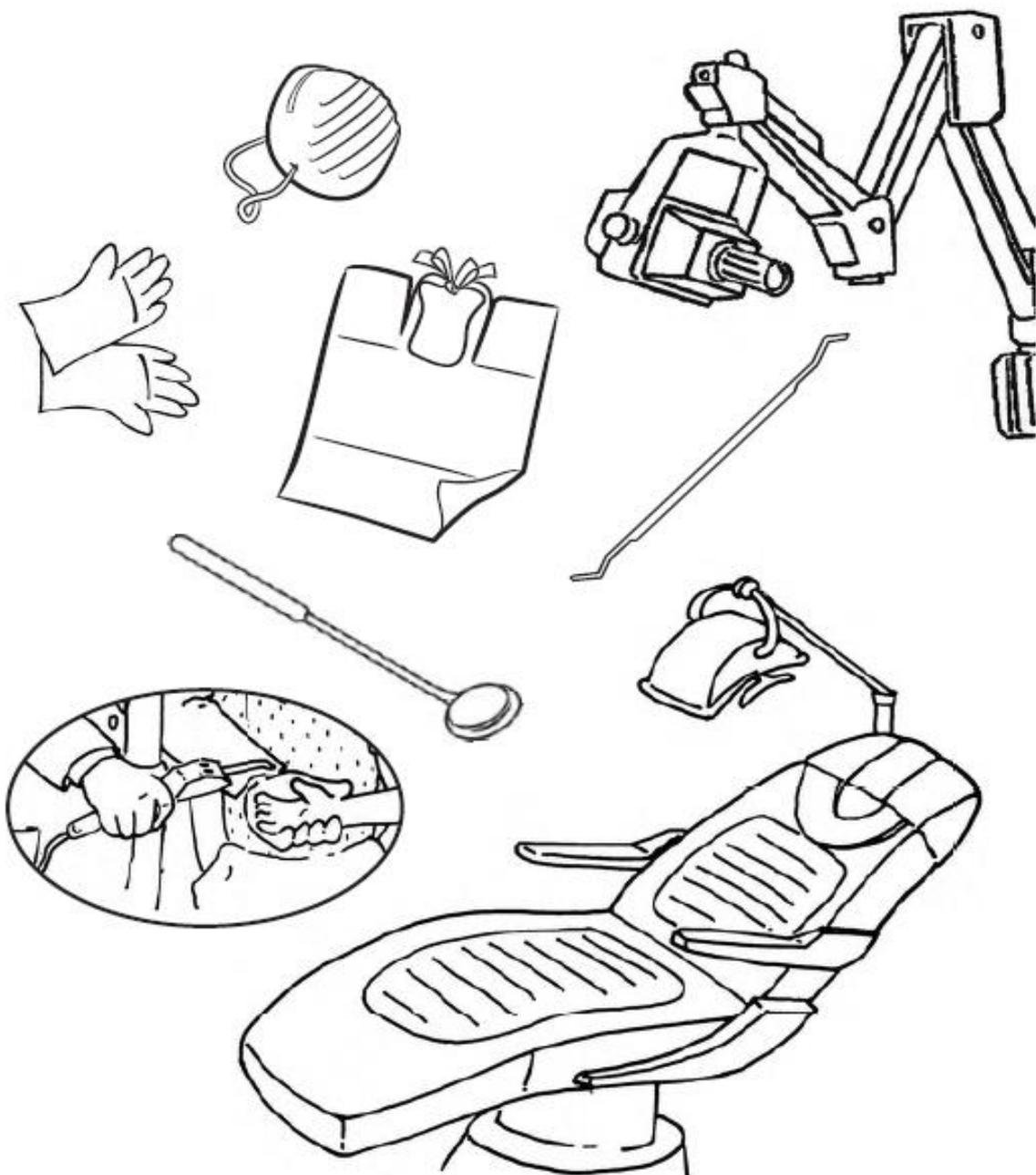
3. *The dental team:* What other people might you see at your dentist's office? Who else works there? (Receptionist and dental assistant) The receptionist works at the desk and greets you when you come in. The dental assistant helps the dentist by getting the exam room ready.
4. *The dental exam:* What is your dentist looking for when checking your teeth? (Get several answers.) Yes, your dentist looks for many things. Your dentist counts your teeth, sees if you are brushing properly, checks to make sure your teeth are growing the correct way, and looks for cavities. Your dentist also checks your tongue and the inside of your mouth to make sure they are healthy, too! If you have any questions about your teeth or how to take care of them, ask your dentist. Your dentist is a friendly doctor who wants you to have healthy, shining teeth.

Recommended Activities:

1. Visiting the Dentist Activity Sheet
2. If available in your resource library, select one of the following books to read to the children: *Dora the Explorer: Show Me Your Smile*, *Harry and the Dinosaurs Say Raahh, Open Wide*, or *The Berenstain Bears Visit the Dentist*. Introduce the book and share an overview with children. Then activate prior knowledge by asking children to tell what they know about visiting the dentist.



Visiting the Dentist



Lesson Plan Reference and Resource List

Materials were compiled from the following sources:

- The American Dental Association
Sesame Street: Healthy Teeth, Healthy Me series at www.sesameworkshop.org (type the word teeth in the search block, choose "Healthy Teeth, Healthy Me" and then choose "Healthy Teeth, Healthy Me Toolkit").

There are also resources available that may be "checked out" by your regional oral health coordinator to serve as visual aids for each lesson.

Oral Health Education Resource Guide

1st Grade Module: At a Glance

| <i>Lesson Title</i> | <i>Lesson Objectives</i> | <i>WV CSOs</i> |
|---|---|--|
| <i>Lesson 1-Good Nutrition: Something to Smile About</i> | Upon completing this lesson, students will be able to: <ul style="list-style-type: none"> ● Identify healthy foods for the body as well as teeth | WE. 1.1.02 Describe the effects of healthy and less healthy foods on the body |
| <i>Lesson 2-A Visit to the Dentist</i> | Upon completing this lesson students will be able to: <ul style="list-style-type: none"> ● Better understand the role of the dental team in helping their teeth to stay healthy and strong | WE. 1.1.04 Explain the need for medical checkups and other healthcare procedures (e.g. dental exams) |
| <i>Lesson 3-What Do Teeth Do For Us?</i> | Upon completion of this lesson students will be able to: <ul style="list-style-type: none"> ● Identify the function of teeth ● Identify the difference between baby teeth and adult teeth | No CSOs identified specific to 1 st grade |

Lesson Plan 1

Title: Good Nutrition: Something to Smile About

Key Learning Point: Eating and drinking healthy foods is another way we can help keep our teeth clean and healthy.

Student Goals & Objectives:

Upon completing this lesson students will be able to:

- Identify healthy foods for the body and teeth

WV CSOs:

WE.K.1.04 Identify healthy foods

Length of Lesson:

A minimum of 10 minutes to a maximum of 20 minutes is needed depending on the number of activities included.



Leading Questions:

1. What is your favorite snack after school?
2. Why should you brush your teeth after snacking?
3. What are some healthy drinks?
4. Can you name some fruits and vegetables?
5. Should you snack right before a meal is served?
6. If you snack on sugary foods, what can happen to your teeth?

Another way we can help keep our teeth clean and healthy is by eating and drinking healthy foods. The foods we eat are just as important for keeping our teeth healthy as they are for keeping our bodies healthy. Eating a mix of healthy foods for breakfast, lunch and dinner is the best way to keep your teeth and whole body in good shape. If you are hungry and need a snack, choose foods like fruit, low-fat cheese, low-fat yogurt, or raw vegetables. Be adventurous: try something new!

If you are thirsty, have a glass of water or low-fat milk. Do not drink too much sugary soda or eat too many sweets. If you have some sweets, try to eat them with your meals.

Nutrition is the food that we eat to keep our bodies healthy and strong. Foods also give the body energy. It is important to eat healthy foods from each food group every day. Talk about healthy food and unhealthy food.

Eating healthy food also helps to keep your teeth strong. Too many sweets and junk foods can cause your teeth to get weak spots that can lead to a cavity.

Recommended Activity:

1. Finders Keepers Activity Sheet
2. If available in your resource library, demonstrate healthy choices using a tooth magnet board. This resource can also be checked out from your Regional Oral Health Coordinator.

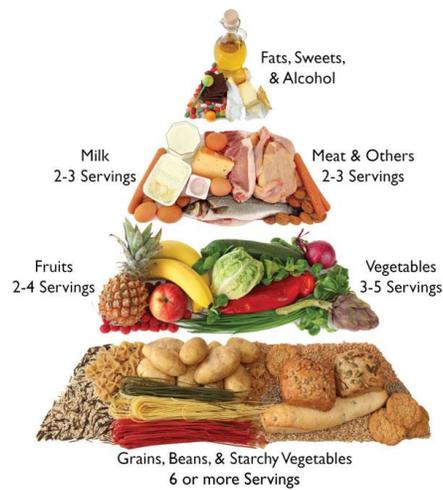


3. Make a Happy Tooth, Sad Tooth Collage:
Students will learn to match unhealthy foods to unhealthy teeth and healthy foods to healthy teeth. To complete this activity, students will cut pictures of healthy/unhealthy foods and beverages from magazines and then glue the appropriate foods and drinks to either a happy or sad tooth.



Before initiating the activity, show the children illustrations or plastic models of nutritious foods and beverages. If your class is familiar with the Food Pyramid, or if you have taught about proper nutrition, you can use it to review good choices. (Visit www.mypyramid.gov for more information.)

Ask children to identify and try a healthy food that they have not tried before. Do follow up discussion in a few days.



Finders Keepers

Color the things that help you keep your mouth healthy.



Lesson Plan 2

Title: A Visit to the Dentist

Key Learning Point: The dentist and dental hygienist are our partners in caring for our teeth.

Student Goals & Objectives:

Upon completing this module, students will better understand:

- The role of the dental team in helping their teeth to stay healthy and strong.

WV CSOs:

WE.K.1.1.04 Explain the need for medical checkups and other health-care procedures (e.g. dental exams)

Length of Lesson:

10 minutes

Lesson Topics (with discussion points and questions):

It is important to visit the dentist and dental hygienist!



Dentists and dental hygienists are people who care for your teeth. They check your teeth to make sure they are healthy. Always cooperate when a dentist or dental hygienist is checking your teeth. The dentist will help fix tooth problems that you may have. A visit to the dentist office is easy and fun. The dentist and dental hygienist help keep our teeth strong and healthy.

Leading Questions:

1. *Why it is important to visit your dentist and dental hygienist:* What is a dentist? (A doctor who takes care of teeth and mouths.) How many of you have visited your dentist? Why is it important to visit the dentist? (To make sure your teeth stay healthy and strong.) What is a dental

hygienist? (A person who cleans and takes x-rays of your teeth to help keep them healthy.)

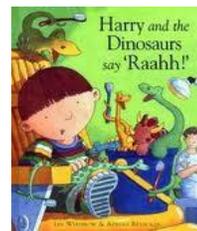
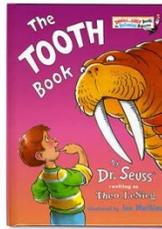
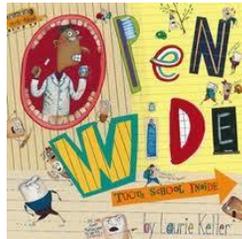
2. *The dentist's office:* What interesting things did you see in your dentist's office? (Discuss answers, which might include the exam chair, special light, special tools, dental mask and gloves, etc.)

Your dentist and dental hygienist have all sorts of interesting things in the office. (Distribute Visiting the Dentist coloring sheets.) The special chair moves up and down so that people of different sizes can sit in it, and the dentist can see easily into all their mouths. The light helps your dentist and dental hygienist see into mouths, too. They also have some other special things in the office. The little mirror lets them see your back teeth; the "feeler" tool helps the dentist count your teeth; the x-ray machine takes pictures of the insides of your teeth; the bib protects your clothing; and there is even a little hose to spray water into your mouth.

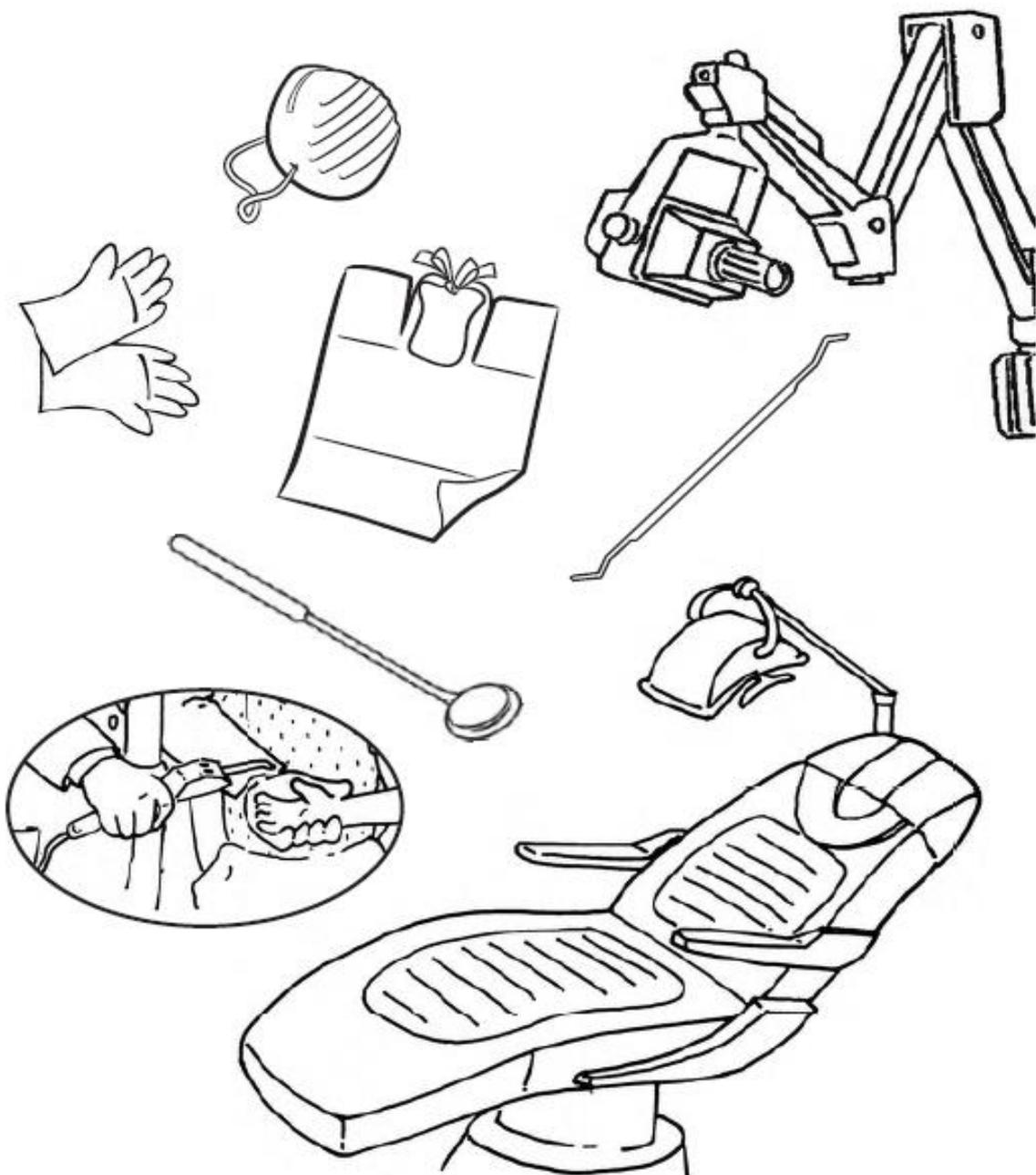
3. *The dental team:* What other people might you see at your dentist's office? Who else works there? (Receptionist and dental assistant) The receptionist works at the desk and greets you when you come in. The dental assistant helps the dentist by getting the exam room ready.
4. *The dental exam:* What is your dentist looking for when checking your teeth? (Get several answers) Yes, your dentist looks for many things. Your dentist counts your teeth, sees if you are brushing properly, checks to make sure your teeth are growing the correct way, and looks for cavities. Your dentist also checks your tongue and the inside of your mouth to make sure they are healthy, too! If you have any questions about your teeth or how to take care of them, ask your dentist. Your dentist is a friendly doctor who wants you to have healthy, shining teeth.

Recommended Activities:

1. Visiting the Dentist activity sheet
2. If available in your resource library, select one of the following books to read to the children, *Harry and the Dinosaurs Say Raahh*, *The Open Wide*, or *The Tooth Book*. Introduce the book and share an overview with children. Then activate prior knowledge by asking children to tell what they know about visiting the dentist.



Visiting the Dentist



Lesson Plan 3

Title: What Do Teeth Do For Us?

Key Learning Point: Healthy teeth are an important part of a healthy body.

Student Goals & Objectives:

Upon completion of this lesson, students will be able to:

- Identify the function of teeth.
- Identify the difference between baby teeth and adult teeth.

WV CSOs: None identified.

Length of Lesson:

A minimum of 10 minutes to a maximum of 30 minutes is needed depending on the number of activities included.

Lesson Topics (with discussion points and questions):

Today we are going to talk about the function of teeth and the difference between baby and adult teeth.

Leading Questions:

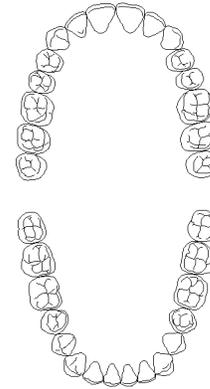
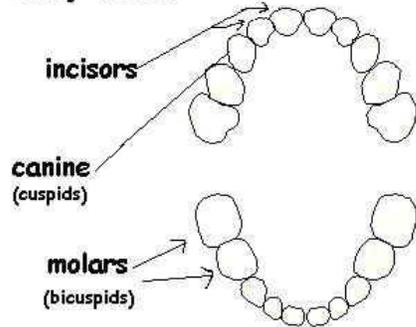
1. Who has teeth?
2. Do animals have teeth?
3. What do teeth do?
4. How many sets of natural teeth do you have during your life?
5. How long are your adult teeth going to last?

The oral cavity is the beginning of the digestive system. The first step of digestion is the mastication (chewing) process. Teeth are different sizes and shapes for different functions. Incisors are for cutting, canines are for tearing, and premolars and molars are for crushing and grinding foods. Other functions of healthy teeth include speaking, smiling, and providing structure for facial support.

Humans have two sets of natural teeth in a lifetime: primary (deciduous) and permanent. First graders normally have 20 primary teeth prior to the eruption of permanent teeth. Baby teeth are your first set of teeth. You start to get baby teeth at about six months old. Baby teeth start to fall out one at a time as you get older, usually around the age of six.

A complete permanent dentition includes 32 teeth. Primary teeth include incisors, canines and molars. Permanent teeth include incisors, canines, premolars and molars. Adult teeth come in as you grow up. Adult teeth are meant to last your whole life.

Baby Teeth



Children usually have 20 baby teeth

Grownups have 32 adult teeth

I lost a Tooth!



When a baby tooth is ready to come out, the roots on the baby teeth dissolve and shrink away allowing the tooth to become loose and able to be removed easily. Permanent teeth take the place of primary or baby teeth. Permanent teeth are meant to last your entire life.

Recommended Activities:

1. Have pictures of animals to identify the different shapes and types of teeth. (e.g., beavers and rabbits for incisors, dogs for canines, and horses for molars)
2. Bring in a variety of nutritious foods and have students eat the foods to see what teeth they use. (e.g. biting an apple with their incisors)
3. Create a lost tooth club or poster in the classroom.
4. Create a letter to the tooth fairy describing how they plan to take care of their new teeth.
5. Check out tooth puzzles from your Regional Oral Health Coordinator to teach the anatomical features of the tooth.



6. Molar Tooth Activity. Draw a tooth silhouette and have the children glue cotton balls to fill in the tooth.



7. Word Play Activity

Teeth not only help you chew your food, but they also help you speak clearly. The sounds of many letters in the alphabet cannot be made without the help of your teeth. Teeth also give your face its shape and add to the way you look.

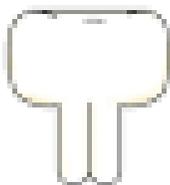


Have the students say words that use teeth to make sounds.

- "v" and "f" (friend, fever) The lower lip touches the top teeth.
- "th" (the, teeth) The tongue touches the top teeth.
- "s" (sun) Air goes between the teeth.

Now, try saying the same words again, but do not let the tongue or lips touch the teeth.

The Lost Tooth Club Story Page: Teacher Copy



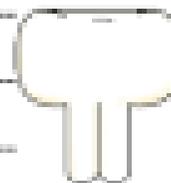
Our newest member of
The Lost Tooth Club is

_____!

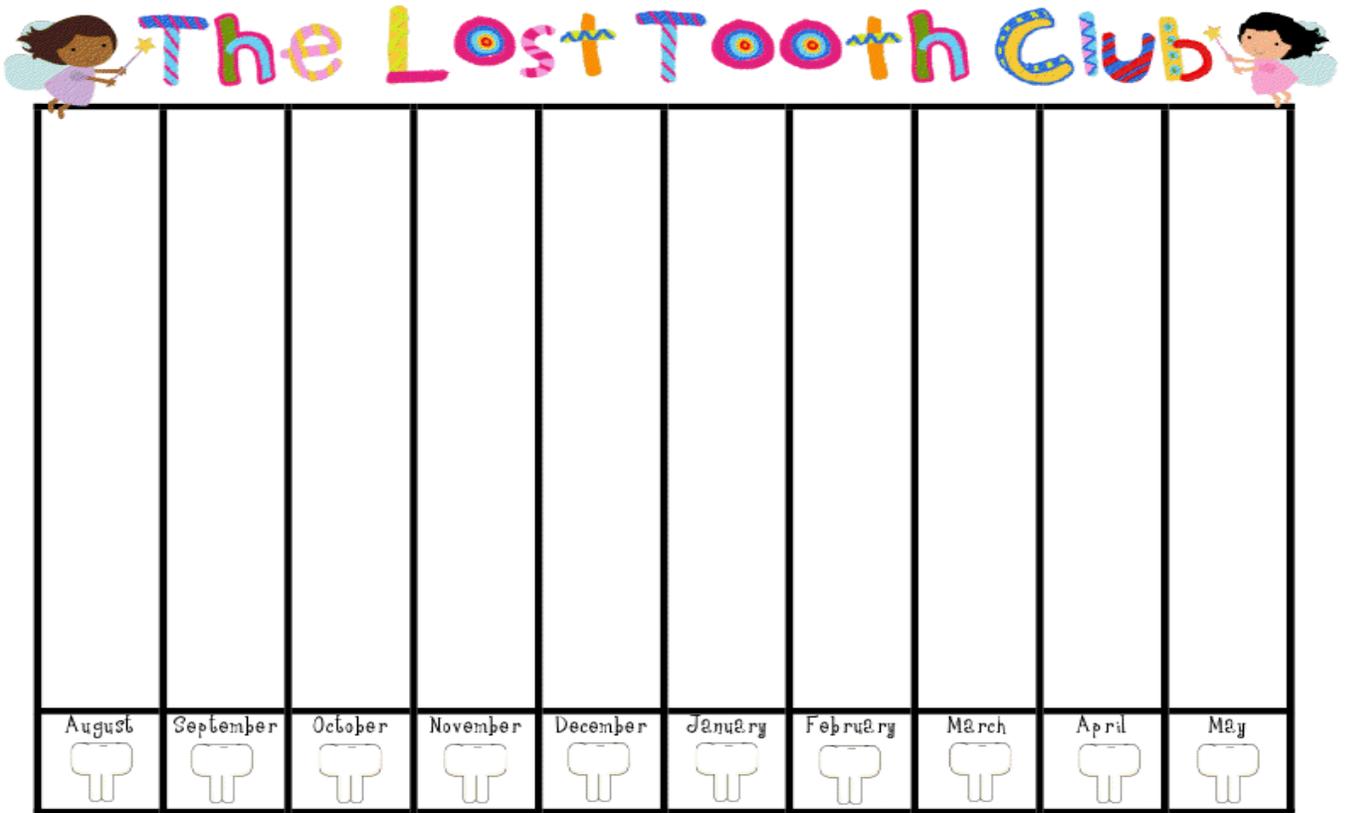
Here is the story of how I lost my tooth!

The tooth themed book I chose to read
with my family was

I liked it because _____



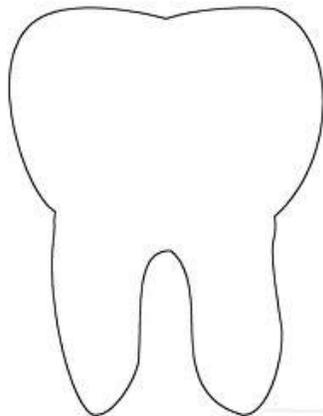
Example-The Lost Tooth Club Chart: Teacher Copy



The chart features a title "The Lost Tooth Club" in colorful, bubbly letters. Two cartoon fairies are positioned on either side of the title. Below the title is a large grid with 10 columns and 10 rows. The bottom row of the grid contains the months: August, September, October, November, December, January, February, March, April, and May. Each month label is centered above a small, simple outline of a tooth. The rest of the grid is empty, intended for recording lost teeth.

©ericaboehrer2011

Add child's name to tooth and place on chart



Lesson Plan Reference and Resource List

Materials were compiled from the following sources:

- The American Dental Association
- Saving Smiles Series: Healthy Mouths, Healthy Bodies: Division of Dental Health, Virginia Department of Health:
www.vahealth.org/teeth

There are also resources available that may be “checked out” by your regional oral health coordinator to serve as visual aids for each lesson.

Oral Health Education Resource Guide

2nd Grade: At a Glance

| Lesson Title | Lesson Objectives | WV CSOs |
|---|--|---|
| Lesson 1 -YOU have the Power! | Upon completing this module, students will be aware of four steps for good oral health: <ul style="list-style-type: none"> ● Brush with fluoride toothpaste twice each day ● Floss once a day with a grown-up’s help ● Eat and drink nutritious foods and beverages and limit snacks ● Visit their dentist regularly | WE.2.1.03 Explain the importance of good dental care and demonstrate good dental hygiene WE.2.3.06 Discuss how community agencies work to prevent and control diseases |
| Lesson 2 - Tobacco Pollution: Inside and Out | Upon completing this module, students will be able to: <ul style="list-style-type: none"> ● Improve decision-making ability ● Clarify personal values and attitudes ● Identify some of the harmful effects of smoking cigarettes | WE.2.3.04 Describe how tobacco and alcohol harm one’s health |

Lesson Plan 1

Title: YOU have the Power!

Key Learning Point: A healthy mouth and teeth are important parts of a healthy body.

Student Goals & Objectives:

Upon completing this lesson, students should be aware of four steps for good oral health:

- Brush with fluoride toothpaste twice each day
- Floss once a day with a grown-up's help
- Eat and drink nutritious foods and beverages and limit snacks.
- Visit their dentist regularly

WV CSOs: WE.2.1.03

Explain the importance of good dental care and demonstrate good dental hygiene.

Length of Lesson:

30 minutes

Lesson Topics:

Today we are going to talk about the steps for good oral health.

Leading Questions (with discussion points and questions):

1. *Feeling healthy:* How do you feel when you are healthy? (feel strong, have lots of energy, feel happy, etc.) Can someone really be healthy if their mouth and teeth are not healthy? (No) Why not? (Because a clean mouth feels nicer, your breath smells nice, etc.)
2. *Keeping teeth healthy:* What can you do to fight plaque and help keep your teeth healthy? (brushing, visiting the dentist, good food and drink choices and flossing) Let's talk about some of these.
3. *Proper brushing:* How many of you brush your teeth? Great! How often should you brush your teeth? (twice a day) What do you put on your toothbrush? Yes, toothpaste. Why do you use toothpaste? (cleans better than water, gets the food and plaque off your teeth, makes your breath smell good, makes your mouth taste good, etc.) Those are all

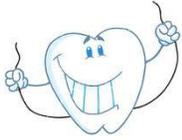
good answers. There is also something very important in most toothpaste that helps strengthen your teeth. Does anyone know what it is called? It is "fluoride." (Write "fluoride" on chalkboard) Fluoride prevents cavities by strengthening and protecting the teeth from acid. By the way, after you have brushed your teeth, spit out all the toothpaste! Do not swallow it. Toothpaste is for cleaning your teeth, not your stomach! Brush twice a day with fluoride toothpaste. Fluoride prevents cavities by strengthening and protecting tooth enamel. Enamel is the outer layer of the tooth. Always spit out all the toothpaste!



(NOTE: Ideally, an adult will brush and floss a child's teeth until he or she is at least six years old. By age six or seven, children should be able to brush their own teeth twice a day with adult supervision until about age ten or eleven to make sure they are doing a thorough job. Since adults at home do not always supervise tooth brushing, you might want to suggest to your class that they ask a grown-up to watch them brush, so they can show how well they do it! Flossing demands more manual dexterity than very young children have and children are not usually able to floss well until they are age ten or eleven, and even then they should be supervised.)

4. *Toothbrushes:* What kind of toothbrush do you use? (Get several answers.) You should use a child-size toothbrush that is easy to hold. Use a toothbrush that has soft bristles and is comfortable to use. You should get a new toothbrush when the bristles are bent and worn out. Also, make sure you throw away your toothbrush after you have had a cold or the flu and change your toothbrush every three months.
5. *Flossing:* Is there anything else we can do to clean our teeth? (use floss) Who knows what dental floss is? (looks like string or thread) Dental floss is a special kind of string for cleaning between your teeth. How many of you floss your teeth? Cleaning between your teeth is just as important as brushing. Do you know WHY? (Flossing helps remove bits of food and plaque from between the teeth where your toothbrush can not reach. It helps keep your teeth and gums healthy) Flossing is not as easy for children to do as brushing, so you should ask your

parents or another grown-up to help you floss. You should floss your teeth very gently with a grown-up's help.



Show floss and explain the technique used in *How to Floss*.

Ask for a student volunteer, and demonstrate the following flossing technique using yarn: The child holds hands together with fingers straight up and tight against each other. These are the teeth. Use the yarn to floss between the student's fingers. Arrange students in pairs, give each pair a length of yarn, and allow them time to practice "flossing" each other's fingers. (One variation of this is to smear tempera paint between the fingers of the child representing the teeth, and then use the yarn to "floss". In this way, the children will actually see the "floss" cleaning between the teeth.)

6. *Good nutrition:* Brushing and flossing are very important ways to keep teeth clean and healthy, but there are a few more things that each of us can do. Any ideas? I will give you two hints: It has to do with plaque and germs and ACID. It also has to do with keeping the rest of your body healthy. Yes. The foods we eat and the beverages we drink are very important for keeping our teeth healthy. So let's talk about food.

Nutritious Foods. Does anyone remember the food groups? (List on board.) Eating a mix of foods from these groups for breakfast, lunch, and dinner is the best way to keep your teeth and whole body in good shape. (Discuss healthy eating for a few minutes.) Visit www.mypyramid.gov for resources

What about snacks, soda pop, and sweets? (Get opinions.) Who remembers what happens in our mouths after we eat? Yes, plaque and sugar mix to form acid. Then the acid attacks our teeth. The more often we eat snacks and drink sugary liquids, the more acid attacks we have, but that does not mean that all snacks are bad for you. Sometimes growing children need to eat between meals. If you are hungry and need a snack, choose nutritious foods like fruit, low-fat cheese, low-fat yogurt or raw vegetables. Save the sweets to eat and drink with your meals. A full meal produces lots of saliva in your mouth that helps wash away the acids from your teeth.

Eating a nutritious mix of foods from the food groups is the best way to keep your teeth and body healthy. If you have sweets, eat or drink them with your meals. If you snack, eat nutritious foods.

What about chewing gum? (Get opinions) Chewing gum immediately after a meal or snack is okay as long as the gum is sugar-free. In fact, sugar-free gum makes your mouth produce more water, called saliva, which can help rinse the acid off your teeth. Of course, if your parents do not like you chewing gum, then you should not, and we never chew gum in school. Do not forget to throw your gum away in a trash can when you are finished!

Chewing sugar-free gum increases saliva and helps wash out food and acid.

7. *Protect your teeth:* Another way to keep your teeth in good shape is NOT to chew on hard things — like ice cubes, pencils, or hard candy. Your teeth are strong, but it is possible to crack or chip them. It is a good habit to keep things out of your mouth that do not belong there! Do not chew on hard objects like pencils, ice cubes, or hard candy.
8. *Dental visits:* So now we know four important ways to take care of our teeth: brushing, flossing, eating nutritious foods, and not chewing on hard objects. There is one more very important thing we should all do to keep our teeth healthy. Who can tell me what it is? Yes! Visit your dentist regularly. Your dentist will tell you when your next visit should be. What are some of the ways the dentist helps you take care of your teeth? (Checks your teeth to see if they are healthy, teaches you how to take good care of your teeth, and fixes cavities and repairs teeth) Great! (If time allows, discuss the children’s experiences at the dentist’s office.) Visit your dentist regularly.

We have learned a lot about our teeth today and how to take good care of them.

- Our teeth are important.
- Healthy teeth are part of a healthy body.
- Taking good care of our teeth is something that each of us can do.

Summary: Healthy teeth can last a lifetime if they are cared for properly.

Recommended Activities

1. Have students work individually or in pairs to complete the activity sheets *A-MAZE-ing Message* and *Something's Missing*.
2. Invite a dentist or Regional Oral Health Coordinator to your classroom for a guest presentation.
3. Distribute copies of the Oral Care Calendar to students. Create an incentive program for students who bring in a completed calendar.



4. Visit the National Museum of Dentistry MouthPower site for activities that are based on the National Science and Health Education Standards. These activities are designed to be accessed either individually or in a group setting.
<http://www.dental.umaryland.edu/museum/index.html>
5. Conduct the *Power of Fluoride Experiment*.



The Power of Fluoride Experiment

This experiment simulates the protection power of fluoride.

What you will need:

- 1 bottle of fluoride rinse solution (available from your dentist, local dental supply company, and some pharmacies)
- 2 eggs
- 1 bottle of white vinegar
- 3 containers

What to do:

Pour four inches of fluoride rinse solution into one of the containers and then place an egg in the solution. Let it sit for five minutes. Remove the egg. Pour four inches of vinegar into each of the remaining two containers. Put the egg that has been treated with the fluoride into one container of vinegar and the untreated egg in the other container of vinegar.

What will happen:

One egg will start to bubble as the vinegar (an acid) starts to attack the minerals in the egg shell. Which egg do you think will start to bubble?

Lesson Plan 2

Title: Tobacco Pollution: Inside and Out

Key Learning Point: Tobacco is a bad habit that is very dangerous, not only for your teeth, but for your mouth and entire body.

Student Goals & Objectives:

Upon completing this lesson, students should be able to:

- Identify some of the harmful effects of smoking cigarettes
- Improve decision-making ability
- Clarify personal values and attitudes

WV CSOs:

WE.2.3.04 Describe how tobacco and alcohol harm one's health.

Length of Lesson:

30 minutes

Lesson Topics:

Today we will learn the harmful effects of tobacco to the body.

Leading Questions (with discussion points and questions):

Tobacco is a bad habit that is very dangerous, not only for your teeth, but for your mouth and entire body. All tobacco products, not just cigarettes and cigars are bad for your body. Smokeless tobacco, also called chew, can cause mouth, tongue and lip cancer, and is sometimes more addictive than cigarettes. Tobacco products also stain your teeth and cause gum disease and tooth loss. AND – tobacco products cost a lot of money! Bottom line: There is nothing good to say about tobacco products. Never starting is your best defense against all the health problems related to tobacco. Tobacco products can cause gum disease, tooth loss and cancer. BE SMART; DO NOT START!

1. Ask the children to define the word, "pollution." Webster's *New Word Dictionary of the American Language* gives this definition: "Pol-lu-tion: to make unclean, impure, or corrupt; desecrate; defile; contaminate; dirty."

2. Discuss pollutants in the air in the outside environment. Use pictures from magazines and newspapers. Include that pollution is caused by factory smoke, car exhausts, rocket launches, and smoke from someone else's burning cigarette.
3. Talk about how pollution makes the air "dirty".
4. Have the children complete the *Pollution Outside the Body* activity sheet.
5. Explain how all living things need air to breathe.
6. Put a plant under an airtight container. What begins to happen?
7. Put ants or other insects in an airtight jar. Give them everything else they need to survive. What happens? Why? (When the ants' activity begins to decrease, open the jar and set them free.)
8. Study the picture on the [Pollution Inside the Body](#) activity sheet that shows the passage of air into the lungs.
9. Talk about the fact that smoking cigarettes is harmful to our health and how it "pollutes" the internal environment of our body (the lungs).
10. Blow smoke from a cigarette through a tissue. (A smoking machine may be able to be obtained from your local Cancer Society or Heart Association.) What did you observe? Wouldn't that also make your lungs "dirty"?
11. What would happen to us if something interfered with our breathing properly? How long does it take to use up all the air in your lungs? Hold your breath and have someone check the time. Did you have to breathe very soon after you started holding your breath?
12. *Demonstrate the effects of sick or injured lungs*
Light a candle. Ask a child to stand a reasonable distance from the candle. Instruct the child to take a deep breath, and then blow out the candle. Relight the candle. Ask the child to stand at the same distance

from the candle. Instruct the child to take a deep breath and blow out at least half of the breath before attempting to blow out the candle. With the breath that is left, ask the child to blow out the candle. What happened?

13. Identify and discuss other facts about cigarettes and cigarette smoking:

- Cigarettes are made of brown leaves called tobacco.
- Tobacco contains a drug called nicotine.
- Smoking cigarettes deadens the nerve endings for smell and taste.
- People who smoke cannot smell or taste as well as nonsmokers.

Recommended Activities:

1. Look at the *Pollution Inside the Body* activity sheet again and find the nerve endings for smell. Find the nerve endings for taste on the tongue as shown in the activity sheet's illustration.

People with stuffy noses cannot smell or taste well either. To simulate what it would be like for a smoker, ask a child to taste a snack. Then ask the child to hold his or her nose and taste the snack. Describe the difference. Ask other students to participate. A child can be asked to close his or her eyes, and hold his or her nose. Offer several different tasting foods. Have the child try to guess what foods are being offered. Discuss:

- Smoking makes the smoker's clothes and other things around them smell.
- Smoking stains the smoker's teeth.
- Smoking costs a lot of money to buy cigarettes.

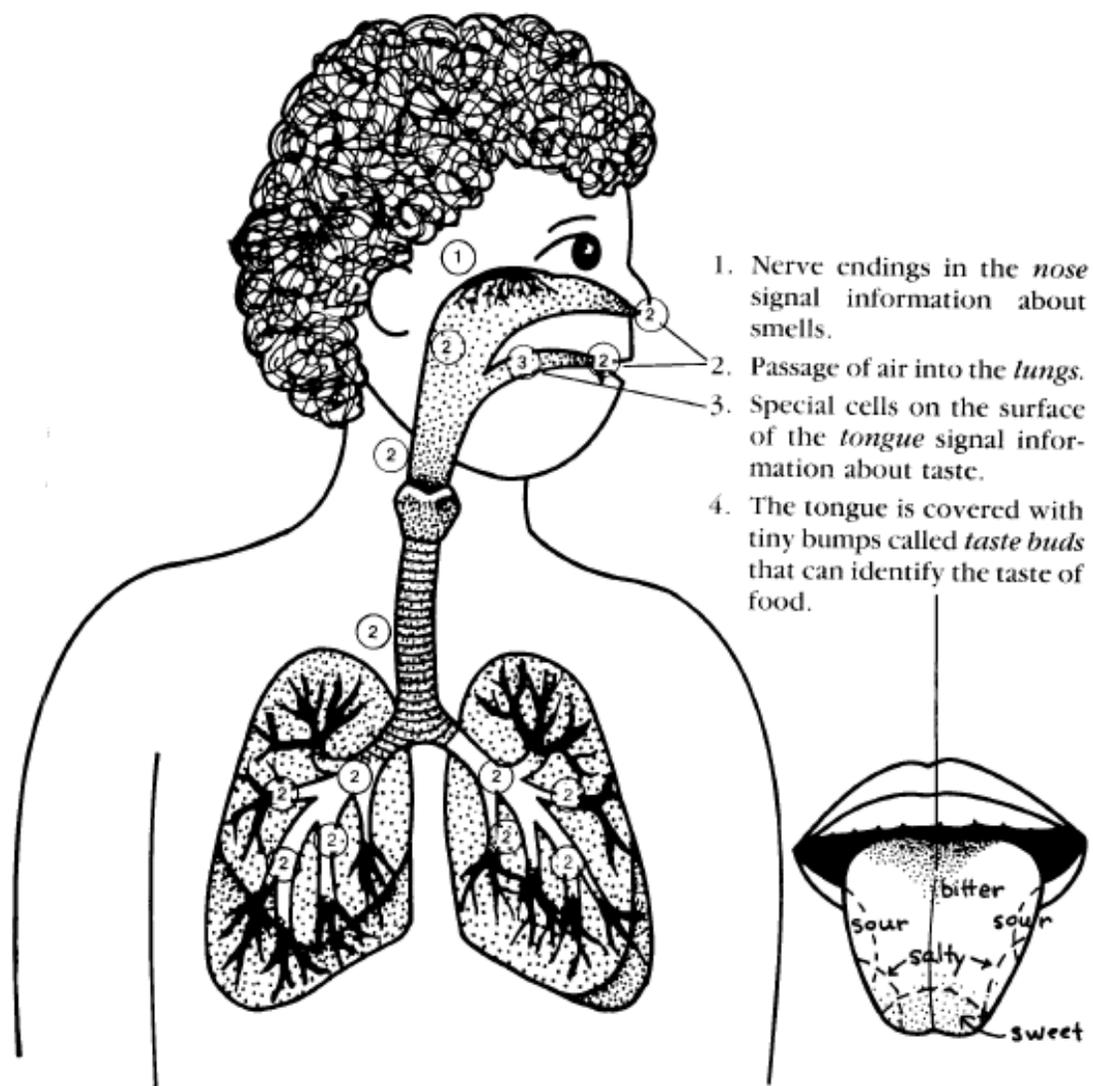
2. Ask the children to create a poster illustrating the theme, "Smoking Is Dangerous for Your Health."

Name _____

4-11B

Date _____

Pollution Inside the Body



Smoking cigarettes deadens the nerve-endings for smell and taste. People who smoke cannot smell or taste as well as nonsmokers.

Name _____

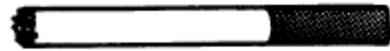
Date _____

Pollution Outside the Body

Fill in the missing letters of the things that dirty the air around us.



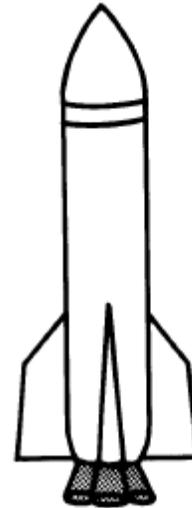
C_R



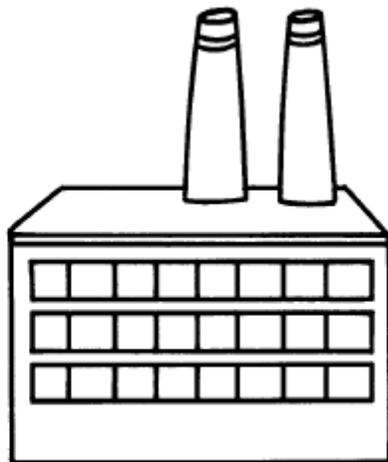
SM_K_NG



A_RPL_N_



R_CK_T



F_CT_RY

Lesson Plan Reference and Resource List

Materials were compiled from the following sources:

- The American Dental Association
- <http://www.teachervision.fen.com/smoking/lesson-plan/3576.html#ixzz2MWZahvFY>
- <http://www.healthyteeth.org/>

There are also resources available that may be “checked out” by your regional oral health coordinator to serve as visual aids for each lesson.

Oral Health Education Resource Guide

3rd Grade: At a Glance

| Lesson Title | Lesson Objectives | WV CSOs |
|--|---|---|
| <p>Lesson 1-What Keeps Your Mouth Healthy: Part 1</p> | <p>Upon completing this lesson, students will better understand:</p> <ul style="list-style-type: none"> ● That bacteria are like other living things: they take in nutrients, they reproduce, and they produce waste products ● The oral disease process: bacteria + sugars and starches →acid →tooth decay | <p>WE.3.3.02 Discuss and practice personal responsibility for one’s own hygiene</p> |
| <p>Lesson 2-What Keeps Your Mouth Healthy: Part 2</p> | <p>Upon completing this lesson, students should know:</p> <ul style="list-style-type: none"> ● That certain foods and how often they are eaten enable bacteria in the mouth to produce acid, which can lead to tooth decay ● That eating healthy foods, removing plaque from their teeth daily, and using fluorides and sealants contribute to good oral and overall health | <p>WE.3.4.01 Describe the food guide pyramid and its value to personal health, recognizing that food provides energy and nutrients for growth and development</p> |

Lesson Plan 1

Title: What Keeps Your Mouth Healthy: Part 1

Key Learning Point: Students will realize that eating fewer sugary and starchy foods and brushing their teeth regularly with fluoride toothpaste can help reduce plaque and tooth decay.

Student Goals & Objectives:

Upon completing this lesson, students should:

- Reinforce their understanding that bacteria are like other living things: they take in nutrients, they reproduce, and they produce waste products
- Explain the oral disease process: bacteria + sugars and starches → acid → tooth decay

WV CSOs:

WE.3.3.02 Discuss and practice personal responsibility for one's own hygiene

Length of Lesson:

30 minutes

Lesson Topics (with discussion points and questions):

Tooth decay (dental caries) is a common, chronic, but entirely preventable bacterial disease that affects people throughout their lives. Dental caries in children can lead to significant problems including pain, infection, and missed school days. When it occurs in very young children or toddlers, tooth decay can cause severe harm to the primary teeth and result in problems with eating, growth, and speech. Practicing good oral hygiene and maintaining a healthy diet can help prevent these problems.

The Importance of Fluoride

Fluoride is a mineral that is beneficial to teeth. At a low dose over a length of time, fluoride can prevent tooth decay. Fluoride works mainly through direct contact with the surface of the teeth. Fluoride is also important during formation of the tooth enamel



before teeth erupt through the gums. People can obtain fluoride in two ways: topically and systemically. Topical fluoride is applied

directly to the surface of the teeth. Fluoride toothpaste, fluoride mouth rinses, and fluoride treatments given by a dental professional are examples of topical fluorides. Fluoride taken systemically enters the body by drinking from community water supplies, by taking dietary supplements (such as tablets or drops), and through the food we eat and the beverages we drink. Although systemic fluorides are important, they do not provide the same benefits as topical fluorides in protecting teeth from decay. To get the most benefit from fluorides, daily exposure to small quantities is important. Most adults and children can prevent tooth decay by brushing with fluoride toothpaste and drinking fluoridated water.

Fluoride protects teeth through three mechanisms.

- Fluoride can reduce the ability of oral bacteria to produce acid.
- Fluoride promotes remineralization and the repair of the tooth surface and inhibits demineralization of the tooth enamel.
- Fluoride strengthens the enamel before the tooth erupts.

The following sections provide additional information on how fluoride works with other minerals to protect and strengthen teeth.

Helping Teeth Repair Themselves

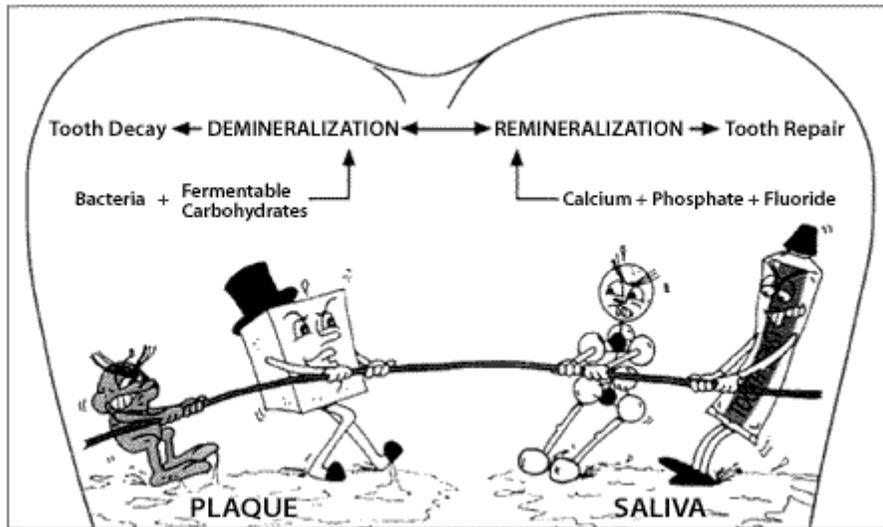
Throughout the day, a tug of war is taking place inside our mouth. Whenever we eat or drink, oral bacteria produce acids that begin to eat away the enamel of our teeth. However, as time passes between episodes of eating or drinking, the amount of acid decreases and the weakened tooth enamel may repair itself. Our teeth go through this constant and natural process of “demineralization” and “remineralization”. Scientists have learned

Did You Know?

Fluoride is added to community water supplies to help people fight tooth decay.

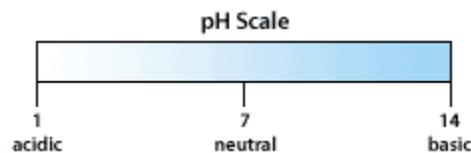
Most bottled water does not contain fluoride at a level recommended for tooth decay protection. If you drink only bottled water, you may be missing the benefits of fluoridated water.

that the tooth surface can, in the presence of fluoride and other minerals, repair itself if demineralization has not passed a certain point.



Demineralization

Demineralization is the loss of minerals from the tooth enamel caused by the acidic waste products of oral bacteria. Each time we eat foods containing sugars or starches, the pH in our mouth drops because oral bacteria produce acid. This more acidic environment causes small amounts of minerals of the tooth enamel to dissolve. How fast demineralization occurs depends on how acidic the oral environment becomes (how much the pH decreases). The more often we eat, especially foods high in sugars, the more frequently the pH in our mouths drops and the less time the oral environment has to correct itself by raising the pH. That is why it is as important, if not more important, to monitor *how often* we eat as well as *what* we eat.



Demineralization occurs just below the surface of the enamel. The enamel and the dentin located just below the enamel of the tooth are made up of many mineral crystals. These crystals are very soluble in acid. So, when we ingest food, the oral bacteria produce acids, and the acids break down the mineral structure of the tooth surface. If the acids remain on the tooth, it will continue to lose minerals.

We can see evidence of demineralization as white spots, called *white spot lesions*, on the teeth. When teeth lose minerals, more light goes through the surface of the enamel, causing it to appear chalky white. If demineralization outweighs remineralization, tooth decay continues and a cavity eventually forms.

Remineralization

Remineralization is the process that replaces the minerals in tooth enamel after demineralization. Saliva greatly enhances remineralization as it regularly bathes the teeth with buffering components, such as bicarbonate, phosphate, and peptides that neutralize the acids produced by the oral bacteria. This buffering action then raises the pH level in the oral environment creating the opportunity for remineralization to occur.

Saliva is 99% water with protein, enzyme, and ion components. Saliva contains calcium, phosphate, and fluoride, which combine to form a new, more fluoride-rich surface on the tooth that can better resist demineralization by acid. Fluoride speeds this process by attaching to the surface of the tooth and attracting calcium ions. Consequently, the use of fluoridated toothpaste and mouthwash increases the reservoir of fluoride in the mouth and aids the remineralization process.

This new understanding of tooth decay as a process is changing the way that tooth decay is treated. Treatments now focus on preventing, stopping, or reversing tooth decay and reducing the risk factors that lead to demineralization rather than waiting to treat the hole in the tooth with a filling. Maintaining a healthy diet, reducing the frequency of snacking, using fluoride, keeping the teeth clean, and having regular checkups can go a long way to maintain a healthy mouth.

Brushing the Teeth

Because fluoride plays such a pivotal role in preventing demineralization and enhancing remineralization, brushing the teeth with fluoride toothpaste is an essential practice for maintaining oral health. Dental professionals recommend brushing after eating or at least two times per day, preferably in the morning and in the evening. The step-by-step procedure for brushing effectively is outlined in the take-home activity, *Brushing to the Beat!* Dental professionals may recommend additional fluoride for people who are at higher risk for tooth decay.

Sealants are another highly effective way to protect teeth from decay. Sealants are thin plastic coatings that are applied to the chewing surfaces of the molars. The chewing surfaces of the molars have small pits and grooves

that trap food particles and bacteria. These areas cannot be cleaned well with a toothbrush. Sealants cover the pits and grooves and form a physical barrier that protects the teeth from the decay-causing acids produced by oral bacteria. Bacteria that are trapped beneath the sealant cannot spread because they cannot reach their food supply.

Most tooth decay in children and adolescents occurs in the molars. Sealants are most effective when applied soon after the molars erupt and before decay begins. The first molars appear when a child is around six years of age; the second molars erupt when a child is around twelve years old. Sealants are an excellent way to prevent tooth decay. Along with saving the tooth structure, sealants save money, time, and the discomfort of some dental procedures. One sealant application may last from five to ten years, but sealants should be checked regularly to ensure that they are intact.

Recommended Activity:

1. *The Power of Fluoride*



The Power of Fluoride Experiment

This experiment simulates the protection power of Fluoride.

What you will need:

- 1 bottle of Fluoride rinse solution (available from your dentist, local dental supply company, and some pharmacies)
- 2 eggs
- 1 bottle of white vinegar
- 3 containers

What to do:

Pour four inches of fluoride rinse solution into one of the containers and then place an egg in the solution. Let it sit for five minutes. Remove the egg. Pour four inches of vinegar into each of the remaining two containers. Put the egg that has been treated with the fluoride into one container of vinegar and the untreated egg in the other container of vinegar.

What will happen:

One egg will start to bubble as the vinegar (an acid) starts to attack the minerals in the egg shell. Which egg do you think will start to bubble?

Lesson Plan 2

Title: What Keeps Your Mouth Healthy: Part 2

Key Learning Point: Students will realize that eating fewer sugary and starchy foods and brushing their teeth regularly with fluoride toothpaste can help reduce plaque and tooth decay.

Student Goals & Objectives:

After completing this lesson, students will:

- Understand that certain foods, and how often they are eaten, enable bacteria in the mouth to produce acid, which can lead to tooth decay
- Recognize that eating healthy foods, removing plaque from their teeth daily, and using fluorides and sealants contribute to good oral and overall health.

WV CSOs:

WE.3.4.01 Describe the food guide pyramid and its value to personal health, recognizing that food provides energy and nutrients for growth and development

Length of Lesson:

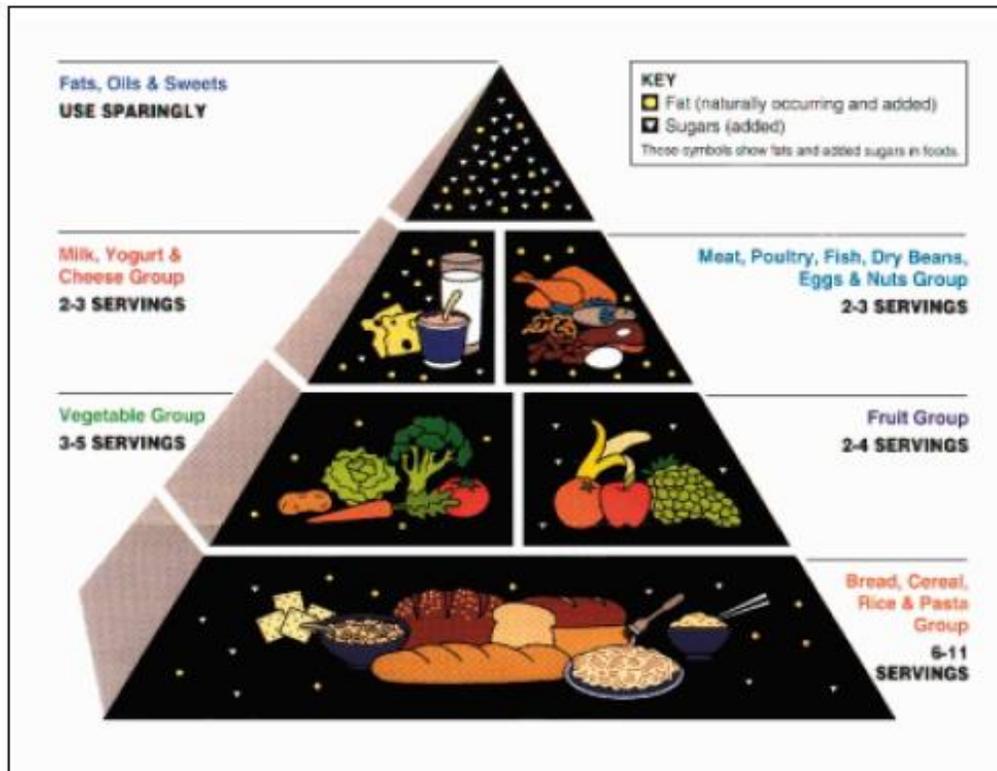
30 minutes

Lesson Topics (with discussion points and questions):

A Healthy Diet: Choosing healthy foods helps us grow and keeps our mouths and bodies healthy. Our eating habits, including our food choices, directly affect the health of our teeth. Sugars belong to the carbohydrate group of nutrients. This group includes simple sugars such as sucrose (table sugar), fructose (fruit sugar), and glucose (blood sugar). The group also includes complex carbohydrates such as starches. Foods containing sugars and starches contribute to tooth decay because oral bacteria use these carbohydrates efficiently and produce acids that damage the tooth's enamel. The more often you eat foods that contain sugars and starches, and the longer these foods remain in your mouth before you brush your teeth, the greater your risk for tooth decay.

Some high-sugar foods, such as candy, cookies, and soft drinks, provide calories but lack the nutrients that our bodies need. Other foods, including fruits, milk, yogurt, bread, cereals, and vegetables also contain sugars and

starches, but these foods nourish the body by providing important vitamins, minerals and fiber.



Structuring your diet according to the Food Guide Pyramid can help you avoid tooth decay. Source: U.S. Department of Agriculture and U.S. Department of Health and Human Services.

The best way to maintain good health for both the body and the mouth is to eat a balanced diet that gives your body the nutrients it needs. Choose foods according to the food pyramid of the U.S. Department of Agriculture (USDA). The USDA recommends eating a majority of foods from the grain, vegetable and fruit groups, followed by foods from the milk and meat groups. The food pyramid specifies that fats and sweets should only be eaten occasionally. Take care not to let soft drinks or other sweets crowd out other foods you need to maintain health.

Remember the demineralization-rem mineralization tug of war? Every time we eat foods containing sugars, we get an acid attack that lasts approximately 20 minutes. If nothing else containing sugars is eaten, the saliva in the mouth will fight off the acid attack. However, if we eat frequently, especially sugars and refined carbohydrates, the repeated cycles of acid attack will cause greater tooth demineralization to occur. Limiting between-meal snacks

will reduce the number of acid attacks on your teeth. Also eating or drinking sweet or starchy foods between meals is more likely to harm teeth than eating the same foods with meals. Saliva production increases during meals and helps buffer the acids and rinse food particles from the mouth. It is best to eat sweets as a dessert after a main meal instead of several times a day between meals.

To protect teeth from decay, remember to:

- choose nutritious foods and snacks in moderation
- eat few foods or beverages containing sugars or starches between meals (if you do eat them, brush your teeth afterward)
- brush at least twice a day with fluoride toothpaste

Recommended Activities:

1. *Carlos and the Sugar Mystery* Activity Sheet. Activity includes student worksheet and teacher key.

2. *Crack the Code* Activity Sheet.

Carlos and the Sugar Mystery!



Sugar may be white, but it is not a power food unless it's natural sugar found in fruit and milk. When too much sugar is added to foods, it makes Carlos feel tired and droopy an hour after eating it! Help Carlos figure out how much sugar is in this food package. Get your pencil and math skills ready to help Carlos solve the sugar mystery!

Step 1: look at the Nutrition Facts label to the right and find out where the sugars are

| Nutrition Facts | Amount/serving | %DV* | Amount/serving | %DV* |
|--|---------------------|------|-----------------------|------|
| | Total Fat 1g | 1% | Total Carb 24g | 8% |
| | Sat. Fat 0g | 0% | Fiber 0g | 0% |
| Serving Size 1 box (32g) | Trans Fat 0g | | Sugars 24g | |
| Servings 1 | Cholest. 0mg | 0% | Protein 1g | |
| Calories 101 | Sodium 180mg | 8% | | |
| Fat Cal. 10 | | | | |
| *Percent Daily Values (DV) are based on a 2,000 calorie diet. Vitamin A 0% • Vitamin C 0% • Calcium 0% • Iron 0% | | | | |

Step 2: write down how many grams (g) of sugars are in one serving size...

Grams of sugar

Step 3: divide the grams of sugar by four ($\div 4$) to get teaspoons (tsp) of sugar in one serving

1 tsp of sugar =
4 g of sugar!

Grams $\div 4 =$

Step 4: see if you can do the same with something you find in your kitchen...

___ Grams $\div 4 =$ ___ tsp of sugar

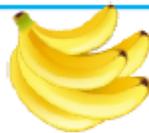
The Sugar Mystery Solved!

How many teaspoons of sugar were in one serving of the packaged food?

Answer = 6 teaspoons of sugar!

When you read the ingredients list on a package of food, sugar may be called any of the following names (these are sugars that have been added to the food and do not occur naturally):

- Sugar
- Fructose, glucose, sucrose
- Corn sweetener
- Corn syrup
- High fructose corn syrup
- Dehydrated cane juice
- Fruit juice concentrate
- High-fructose corn syrup
- Honey
- Invert sugar
- Maple syrup
- Molasses
- Raw sugar
- Dextrose



Milk sugar is called lactose and naturally found in milk. Lactose is not added in, but will appear as a sugar on the nutrient label. Fruit sugar, also called fructose, is naturally found in fruit. When sugar is eaten as part of fruit (dried or fresh) or milk, you get all the vitamins, minerals and phytonutrients necessary to keep your whole body strong! So limit foods with added sugars and stick to foods with natural sugars like fruit and milk.



"saving the world one healthy food at a time"™

© www.superkidsnutrition.com

Grade Level: 2 to 3

Crack the Code:

Discover the Secret to Getting an A+!

Directions: Complete the following problems. Match the answer with the letter in the Code Key Box, and write that letter in the blank. Each column is one word. Penny adds, "You can time yourself to see how speedy you are, and then try again later to see if you've improved!"

| | | | | | | |
|----------------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|
| $4 \times 3 =$ | $2 \times 2 =$ | $36 \times 1 =$ | $2 \times 3 =$ | $5 \times 6 =$ | $12 \times 2 =$ | $6 \times 6 =$ |
| $8 \times 1 =$ | $7 \times 2 =$ | $6 \times 4 =$ | $8 \times 3 =$ | $6 \times 2 =$ | $5 \times 5 =$ | $12 \times 1 =$ |
| $9 \times 4 =$ | $3 \times 4 =$ | | | $5 \times 2 =$ | | $2 \times 9 =$ |
| | $4 \times 2 =$ | | | $10 \times 1 =$ | | $4 \times 9 =$ |
| | $3 \times 5 =$ | | | | | $3 \times 6 =$ |
| | $4 \times 7 =$ | | | | | |
| | $1 \times 8 =$ | | | | | |
| | $6 \times 3 =$ | | | | | |
| | $3 \times 12 =$ | | | | | |



| | | | |
|------------------|--------|--------|--------|
| CODE KEY: | G = 9 | N = 25 | U = 11 |
| A = 8 | H = 22 | O = 24 | V = 89 |
| B = 4 | I = 56 | P = 42 | W = 30 |
| C = 33 | J = 35 | Q = 2 | X = 5 |
| D = 6 | K = 15 | R = 14 | Y = 50 |
| E = 12 | L = 10 | S = 18 | Z = 3 |
| F = 28 | M = 16 | T = 36 | |

Lesson Plan Reference and Resource List

Materials were compiled from the following sources:

- The American Dental Association
- Open Wide, Trek Inside-NIDCR
- <http://science.education.nih.gov/supplements/nih2/oral-health/default.htm>
- <http://www.healthyteeth.org/sugar/index.html>
- <http://www.superkidsnutrition.com/nutrition-resources/kidsactivities/#13english>

There are also resources available that may be “checked out” by your regional oral health coordinator to serve as visual aids for each lesson

Oral Health Education Resource Guide

4th and 5th Grade: At a Glance

| Lesson Title | Lesson Objective | WV CSO's |
|--|--|---|
| <p>Lesson 1-Be Smart About Your Smile</p> | <p>Upon completing this lesson, students should be aware that good oral health habits:</p> <ul style="list-style-type: none"> ● Help keep their whole body healthy and fit ● Can help them do their best at school and in sports (because they will feel better, both physically and psychologically) ● Have cosmetic benefits, including, a nicer looking smile, fresh breath, and social confidence | <p>HE.4.3.08 Develop and practice a personal hygiene plan</p> <p>HE.5.7.02 Identify hygiene practices related to puberty and diet practices for improved personal/family health</p> <p>HE.5.7.05 Demonstrate a variety of behaviors that help to avoid or reduce health risks</p> <p>HE.5.6.01 Describe disease prevention plans (e.g., diet, exercise, hygiene, habits)</p> <p>HE.5.6.02 Identify strategies to change an unhealthy behavior (e.g., smoking, overeating, nail biting)</p> |
| <p>Lesson 2-Sugar Amounts</p> | <p>Upon completing this lesson, students will:</p> <ul style="list-style-type: none"> ● Identify amounts of sugar in school snacks /food and after school snacks ● Describe the relationship between sugar and tooth decay (cavities) | <p>HE.4.1.02 Identifies health problems that are common in the school setting</p> <p>HE.5.1.02 Describes the relationship between poor nutrition and health risk factors</p> |
| <p>Lesson 3-Tooth Protection</p> | <p>Upon completing this lesson, students will better understand how to:</p> <ul style="list-style-type: none"> ● Identify and effectively use equipment to further protect teeth from injury and decay | <p>HE.4.4.04 Explore technology to examine risks involved in not using appropriate safety skills and equipment for recreational purposes (e.g., bike riding, helmet use)</p> <p>HE.5.7.05 Demonstrate a variety of behaviors that help to avoid or reduce health risks</p> |

Lesson Plan 1

Title: Be Smart About Your Smile

Key Learning Point: Taking proper care of your teeth enhances your total health and gives you a more attractive appearance.

Student Goals & Objectives:

Upon completing this lesson students should be aware that good oral health habits:

- Help keep their whole body healthy and fit
- Can help them do their best at school and in sports (because they will feel better, both physically and psychologically)
- Have cosmetic benefits, including a nicer looking smile, fresh breath, and social confidence

WV CSOs:

- WE.4.3.08 Develop and practice a personal hygiene plan
- HE.5.7.02 Identify hygiene practices related to puberty and diet practices for improved personal/family health
- HE.5.7.05 Demonstrate a variety of behaviors that help to avoid or reduce health risk
- HE.5.6.01 Describe disease prevention plans (e.g., diet, exercise, hygiene, habits)
- HE.5.6.02 Identify strategies to change an unhealthy behavior (e.g., smoking, overeating, nail biting)

Length of Lesson:

30 minutes

Lesson Topics (with discussion points and questions):

1. *Personal appearance*: Let's make a list of things that help a person be more attractive. I do not mean good looking or popular; I am looking for ideas about what makes people of any age attractive. (List on chalkboard: personality attributes like friendliness, intelligence, confidence; physical attributes like their smile, cleanliness, being physically fit, being healthy.)
2. *The benefits of a nice smile*: Since we are going to be talking about teeth and good oral health in a few minutes, let's talk a little more

about having an attractive smile. What does it take to get and keep a nice smile? (Keep teeth clean by brushing and flossing, visit your dentist, eat nutritious foods, and do not smoke.) Yes, all those things affect your smile, your teeth, your health and your appearance. Good oral health habits play a big part in having a nice smile, speaking well, being able to eat properly, and having confidence.

3. *What happens if you do not take care of your teeth:* Taking care of your teeth sounds like a smart idea. What happens to your teeth if you do not take care of them? (bad breath, stains, cavities, swollen gums, maybe tooth loss)
4. *What is a cavity:* None of those things sound very appealing. Let's talk about cavities and what causes them. What is a cavity? (A little hole in your tooth.) Right. A cavity is another name for tooth decay. What happens when something decays? (rots, falls apart, loses strength) It is no different with your teeth. When your teeth decay, they lose their strength. The decay can spread throughout your tooth. A cavity is a small hole in a tooth also known as tooth decay.
5. *What is plaque:* Does anyone remember what causes cavities? (You may get a variety of answers, but they may not include plaque.) Those are all interesting answers, but there is one thing that plays a big part in causing decay, or cavities, in your teeth. It is called "plaque". Sound familiar? If you do not brush your teeth before going to bed at night, how does your mouth feel when you wake up in the morning? (tastes bad, smells bad, teeth feel sticky) Your mouth feels that way because plaque has been forming in your mouth all night. Plaque is a sticky, clear film that is forming on your teeth 24 hours a day.
6. *How plaque contributes to decay:* When you eat or drink foods containing sugars and starches, the bacteria (germs) in plaque produce acids that attack tooth enamel. The stickiness of the plaque keeps the harmful acids against the teeth. After many such attacks, the tooth enamel — the hard outer layer of each tooth — breaks down and a cavity forms. Each acid attack can last as long as 20 minutes, making cavities bigger and bigger. Do any of you think you have plaque on your teeth right now?
7. *Plaque and gum disease:* If the plaque is not removed effectively with daily brushing and cleaning between teeth with floss, it eventually hardens into calculus or tartar. Tartar must be removed, because it makes your teeth more difficult to clean. If tartar is not removed, it

can lead to gingivitis, an early form of gum disease in which your gums become irritated and can bleed easily. (gingiva = gums; -itis = inflammation) That is why it is important to brush your teeth twice a day, floss daily, and have your teeth professionally cleaned at the dental office every six months.

When the sugars in food and the germs in plaque mix together they form an acid. The acids in your mouth attack your teeth and can make cavities. Repeated acid attacks make cavities grow bigger.

Brushing and flossing daily help remove bits of food and plaque from the mouth and are essential in preventing both tooth decay and gum disease.

8. *Repairing cavities:* What happens when someone gets a cavity in their tooth? Does it heal itself? (No, you have to go to the dentist to get it repaired.) That is right. Only your dentist can repair a cavity, by removing the decay and putting a special filling material in the hole.

Cavities cannot go away by themselves. They must be treated by a dentist.

9. *Three ways to keep teeth their best:* Let's talk about the three main ways we can keep those "pearly whites" in smiling condition: proper brushing and flossing, eating nutritious foods, and regular dental visits.

10. *Proper brushing:* Let's start with brushing, and list all the good things that happen when we brush our teeth. (Brushing cleans food and plaque off teeth, fights acid, makes your breath smell good, and makes your mouth taste good.) Good answers. How often should you brush your teeth? (Twice a day) There is an important ingredient in most toothpaste that helps your teeth. Does anyone know what it is? (Fluoride.) What does fluoride do? (Fluoride prevents cavities by strengthening and protecting the tooth enamel from acid.) Brush twice a day with fluoride toothpaste. Fluoride toothpaste helps prevent cavities by protecting tooth enamel.

Move the brush back and forth gently in short strokes. Brush the top, front, and back sides of each tooth. If you are wearing braces, you should ask your general dentist or orthodontist about the best way to brush and keep your teeth clean.

You should also gently brush your tongue. Really! Your tongue has lots of germs on it that can cause your breath to smell bad. And by the way, toothbrushes do not last forever. If your toothbrush looks like this (hold up old and new toothbrushes), with bent or broken bristles, it is time to toss it and get a new one! You should use a toothbrush that is comfortable to hold and easily reaches all tooth surfaces.

To reinforce correct brushing technique, utilize the *How to Brush* instruction sheet. Here is a picture of one way to brush your teeth. (Show *How to Brush* and read instructions. Ask for questions and comments.) Move the brush back and forth gently in short strokes. Brush the top, front, and back sides of each tooth. Brush your tongue gently, too. Use a toothbrush that easily reaches all tooth surfaces and is comfortable to hold.

11. *Flossing*: How many of you floss your teeth each day? Flossing cleans between your teeth, which is just as important as brushing them. There are lots of types of floss you can choose — waxed, unwaxed, flavored, string, or flat tape. Flossing is not as easy to do as brushing, so if you do not remember how, ask your dentist, then practice.

You should floss once a day. Why is flossing important? (helps remove bits of food and plaque from between teeth where your toothbrush cannot reach and helps keep your gums healthy) Your permanent teeth are much closer together than your baby teeth were, and flossing those choppers is essential for healthy teeth and gums and fresh breath, too! Remember to floss gently. It does not take a lot of muscle to remove the plaque and debris from between your teeth; just determination. Floss your teeth gently, once a day.

To reinforce correct flossing technique, utilize the *How to Floss* instruction sheet.

12. *Dental visits*: So far we have talked about three important ways you can care for your teeth: brushing, flossing, and eating nutritious foods. There is one more very important thing we should all do to keep our teeth healthy: visit our dentist regularly. What does your dentist do? Let's list some of the things that can happen during a routine dental visit. (examines your teeth, gums and the rest of your mouth to see if they are healthy; tells you how to take good care of your teeth; fixes cavities and repairs teeth; checks your mouth for sores and signs of cancer; sometimes takes X-rays to see the insides of teeth and jawbone; gives you a fluoride treatment) What else? (you have your

teeth professionally cleaned) Why is that important? (Even when you brush well, some plaque stays on your teeth and, over time, hardens into tartar. Tartar can only be removed by a professional cleaning.) Who remembers what we said earlier about why tartar must be removed from teeth? (Tartar must be removed because it makes your teeth more difficult to clean. If tartar is not removed, it can lead to gingivitis, an early form of gum disease in which your gums become irritated and can bleed easily) Ask your dentist when your next visit should be! Visit your dentist regularly.

A routine dental visit includes an examination of your teeth and mouth, professional cleaning, and may include x-rays, repair of damaged teeth and a fluoride treatment.

Summary: Good oral health care provides many benefits that go beyond cavity prevention.

- It helps keep your whole body healthy and fit.
- It can help you do your best at school and in sports, because you will feel better, both physically and mentally.
- It has cosmetic benefits, including a nicer looking smile, fresh breath, and social confidence.

Recommended Activities:

1. *Poster Contest:* Collaborate with a local business/dental office to sponsor a poster contest on oral health issues. Art can be displayed at local businesses during National Children’s Dental Health Month or National Dental Hygiene Month. *Collaborate with a local business/dental office to fund a calendar using art created by students. Calendars could be sold as a fundraiser.*
2. *Bulletin Board:* Create a “Healthy Smiles” bulletin board utilizing oral health messages(*i.e. brush and floss each day; eat nutritious foods; visit your dentist regularly*)
3. *Marshmallow Cream Flossing*
4. *How to Brush*



Marshmallow Cream Flossing

Each individual in the classroom can participate or the teacher can demonstrate.

What you will need:

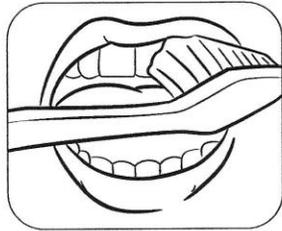
Latex free examination gloves
Utensil (recommend plastic knife)
Marshmallow cream
Pre-cut pieces of yarn

What to do:

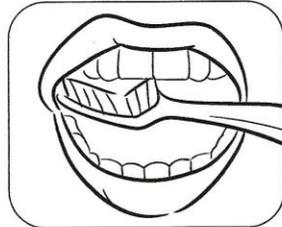
Distribute one glove per student and have them work in pairs. Give each pair a plastic knife and a glob of marshmallow cream. Taking turns, have 1 student be the "flosser" and then other the flossing recipient.

Additional Recommendations for Activities are as follows:

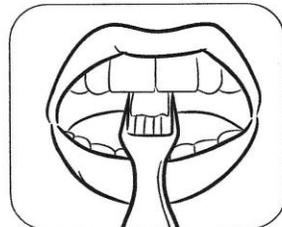
How to Brush



- Place the toothbrush at a 45-degree angle to the gums.

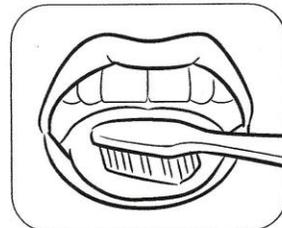


- Move the brush back and forth gently in short strokes.



- Brush the outer surfaces, the inside surfaces and the chewing surfaces of all teeth.

- To clean the inside surface of the front teeth, tilt the brush vertically and make several up-and-down strokes.



- Brush your tongue to remove bacteria and keep your breath fresh.

Lesson Plan 2

Title: Sugar Amounts

Key Learning Point: There is a direct correlation between healthy eating habits and a healthy mouth.

Student Goals & Objectives:

Upon completing this lesson students will:

- Identify amounts of sugar in the school snacks/food and after school snacks
- Describe the relationship between sugar and tooth decay (cavities)

WV CSOs:

- WE.4.1.02 Identifies health problems that are common in the school setting.
- HE.5.1.02 Describes the relationship between poor nutrition and health risk factors.

Length of Lesson:

Dependent upon inclusion of experiments.

Lesson Topics (with discussion points and questions):

Good Nutrition: How does what we eat and drink affect our teeth? (Get a few comments) What we eat and drink, and how often, affects how much acid is made by the plaque in our mouths. Who remembers the food groups? (List on board.) Eating a mix of foods from these groups for breakfast, lunch, and dinner is the best way to keep your teeth and whole body in good shape. You know how important it is to eat right when you are in sports or dance. Well, your teeth are just as affected by what you put in your mouth. Did you know that Olympic athletes have their own dentist? That is because athletes cannot reach peak performance if their mouths are sore or if their teeth ache. Eating a nutritious mix of foods also helps you stay at your proper weight, helps keep your skin clear, and makes your hair shiny! (Visit www.mypyramid.gov for more information.) So let's see how good you are at making up some healthy meals.

If you choose, divide the class into teams of four students. See which can be the first group to make up a menu of three balanced meals and two healthy

snacks. Discuss the choices and how nutritious foods benefit your teeth as well as your total health.

Eating a nutritious mix of foods from the food groups is the best way to keep your teeth and body healthy. Those are very creative meal ideas! But what about sweets? Do you have to give up ALL sweets to have a healthy body and teeth? (Get opinions.) Munching on snacks all day and drinking lots of soda pop is not good for your body. It can cause an unhealthy weight gain and cavities, too! Who remembers what happens in our mouths after we eat? Yes, plaque and sugar mix to form acid. Then the acid attacks our teeth. The more often we eat snacks, the more acid attacks we have. Do not eat too many sweets or drink a lot of soda pop. If you have sweets, eat or drink them with your meals, because your saliva helps wash the acid off your teeth. If you need a snack between meals, choose nutritious foods like fruit, low-fat cheese, low-fat yogurt, or raw vegetables. If you are thirsty, have a glass of water or low-fat milk. If you want sweets, eat or drink them with your meals. If you snack, eat nutritious foods.

To introduce the role that sugar plays in causing tooth decay, ask for a student to provide a definition of sugar. Students can also volunteer answers as to why they like sugar (sweet taste). Inquire as to what students had for breakfast/lunch. Pose the question, did anyone eat a bowl of sugar? Allow students time to raise their hands and explain rationale. Inquire as to if students feel sugar is healthy. Explain that sugar does not provide any vitamins, minerals, protein, or fiber, all of which are essential to help our bodies grow healthy and strong. A diet high in sugar only provides minimal energy and not the essentials required for a healthy body and healthy teeth.

Another reason that we need to monitor and restrict sugar intake is because it directly affects our oral dentition (our teeth). Bacteria live in our mouths just as they do on other parts of our bodies, and those bacteria thrive on what we eat to survive. Bacteria love sugary foods. When we eat sugary foods they produce an acid that will attack the outer layer of the tooth called the enamel. Continual acid exposure on teeth, can lead to cavities (a hole in the tooth). Cavities, if not treated, can become painful and result in an extraction (tooth removal).

Review healthy foods, specifically those low in sugar. Stress that minimal sugar is needed for energy, but students should exercise caution in consumption.

Recommended Activities:

1. Reading Labels Activity
2. "The Acid" Test Candy Experiment

Reading Label Activity**What you will need:**

Box of sugar
Zip lock baggies
Plastic spoons
Various snack and drink labels

What you will do:

Prior to conducting this activity, collect snack and drink packages that students have brought to class. Have students review the nutrition label and find the sugar-based ingredients. Next, have students calculate the grams of sugar that are in the food/drink utilizing the following equation (4 grams = 1 teaspoon). Have students record the amount of teaspoons of sugar in the snack/drink. Next, have students use plastic teaspoons to fill a zip lock baggie with the corresponding amount of sugar as it pertains to the snack/drink they are analyzing. Have students share findings with the class. Highlight those foods and drinks that were the healthiest and the least healthy.



“The Acid Test” Candy Experiment

What you will need:

Bowl
Measuring cup
Water
Pixy stix
Nerds
Lemon heads
Spoon
Baking soda

Why do lemons make you pucker? Because they are sour, right? What makes them taste sour? It is an acid and the word acid means to be sour or tart.

What we are going to do today is find out if there is acid in the sour candies that you are eating. If something contains acid it will produce bubbles from carbon dioxide when mixed with baking soda. We are going to do an experiment to test the sour candy you are eating.

What to do:

Dissolve candy in $\frac{1}{2}$ cup water. (The harder candies may need to be crushed to get them to dissolve faster). Sprinkle a spoon full of baking soda into the candy water mixture. Watch for bubbles. If you see bubbles, then the candy has acid in it.

Remind students that acid is what attacks teeth and can ultimately cause a cavity.

Choose the snacks which are more tooth friendly.

Sugar in food is calculated as follows: 1 gram = $\frac{1}{4}$ teaspoon, 2 grams = $\frac{1}{2}$ teaspoon, 3 grams = $\frac{3}{4}$ teaspoon,
4 grams = 1 teaspoon, 8 grams = 2 teaspoons, 12 grams = 3 teaspoons

Fill in the circle for foods with high sugar content and fill in the square for foods with low sugar content.

| | | | | | |
|--|---|---|---|--|--|
| Kellogg's Cornflakes Sugar: 2g = $\frac{1}{2}$ teaspoons per box <input type="radio"/> <input type="checkbox"/> | Corn Pops Sugar: 12g = 3 teaspoons per box <input type="radio"/> <input type="checkbox"/> | Fruit Loops Sugar: 13g = $3\frac{1}{4}$ teaspoons per box <input type="radio"/> <input type="checkbox"/> | Kellogg's Frosted Flakes Sugar: 13g = $3\frac{1}{4}$ teaspoons per box <input type="radio"/> <input type="checkbox"/> | Frosted Mini-Wheats Bite Size Sugar: 8g = 2 teaspoons per box <input type="radio"/> <input type="checkbox"/> | Special K Sugar: 3g = $\frac{3}{4}$ teaspoon per box <input type="radio"/> <input type="checkbox"/> |
| Kellogg's Raisin Bran Sugar: 14g = $3\frac{1}{2}$ teaspoons per box <input type="radio"/> <input type="checkbox"/> | Rice Krispies Sugar: 2g = $\frac{1}{2}$ teaspoon per box <input type="radio"/> <input type="checkbox"/> | Kellogg's Pop Tarts – Cherry Sugar: 16 g = 4 teaspoons per 2 oz. serving <input type="radio"/> <input type="checkbox"/> | Cinnamon Crunch Crispix Sugar: 8g = 2 teaspoons per box <input type="radio"/> <input type="checkbox"/> | Cherry Mixed Fruit Cup Sugar: 18g = $4\frac{1}{2}$ teaspoons per 4 oz cup <input type="radio"/> <input type="checkbox"/> | Power Bar Sugar: 18g = $4\frac{1}{2}$ teaspoons per 65g bar <input type="radio"/> <input type="checkbox"/> |
| Mini Oreos Bite Size Sugar: 14 g = $3\frac{1}{2}$ teaspoons per 35g bag <input type="radio"/> <input type="checkbox"/> | Fruit Roll Sugar: 15g = $3\frac{3}{4}$ teaspoons per roll <input type="radio"/> <input type="checkbox"/> | Peanut M&M's Sugar: 25g = $6\frac{1}{4}$ teaspoons per $1\frac{3}{4}$ oz bag <input type="radio"/> <input type="checkbox"/> | Fig Newton Sugar: 22g = $5\frac{1}{2}$ teaspoons per 2 1-oz servings <input type="radio"/> <input type="checkbox"/> | Snickers Bar Sugar: 30g = $7\frac{1}{2}$ teaspoons per 2.07 oz bar <input type="radio"/> <input type="checkbox"/> | CapriSun Sugar: 25g = $6\frac{1}{4}$ teaspoons per pouch <input type="radio"/> <input type="checkbox"/> |
| Gatorade Sugar: 22g = $4\frac{1}{2}$ teaspoons per 8 fluid oz <input type="radio"/> <input type="checkbox"/> | Ocean Spray Cranberry Juice Sugar: 50g = $12\frac{1}{2}$ teaspoons per 12 fluid oz <input type="radio"/> <input type="checkbox"/> | Coke Regular Sugar: 39g = $9\frac{3}{4}$ teaspoons per 12 fluid oz <input type="radio"/> <input type="checkbox"/> | Crispix Sugar: 2g = $\frac{1}{2}$ teaspoon per box <input type="radio"/> <input type="checkbox"/> | Applesnax Homestyle Applesauce Sugar: 17g = $3\frac{3}{4}$ teaspoons per 4 oz cup <input type="radio"/> <input type="checkbox"/> | Animal Crackers Sugar: 7g = $1\frac{3}{4}$ teaspoons per 8 crackers <input type="radio"/> <input type="checkbox"/> |

Which food had the most sugar? _____ Which food had the least sugar? _____

February is National Children's Dental Health Month

It's Math Time

Can you help Flossy find the answer to this math mystery?
Follow the clues below to get the answer!

20 minutes – this is how long acids can attack your teeth each time you have sugary foods or drinks. If you have two sugary treats every day, how long have your teeth been attacked by acids at the end of a year?

$$20 \times 2 \text{ sugary drinks or snacks per day} = \boxed{}$$

$$\boxed{} \times 7 \text{ days per week} = \boxed{}$$

$$\boxed{} \times 4 \text{ weeks per month} = \boxed{}$$

$$\boxed{} \times 12 \text{ months per year} = \boxed{}$$

$$\boxed{} \div 60 \text{ minutes in an hour} = \boxed{} \text{ hours per year!}$$

Limit sugary foods and drinks!
When your tooth enamel is eaten away
by acids, it doesn't grow back!



Answer 224 hours

Lesson Plan 3

Title: Tooth Protection

Key Learning Point: In addition to good oral hygiene and regular dental visits, sealants, mouthguards, and good health habits can help teeth last a lifetime.

Student Goals & Objectives:

Upon completing this lesson students should be aware of additional ways that teeth can be protected and kept healthy:

- What dental sealants are, and how they protect teeth from cavities
- Why wearing mouthguards during active sports is important

WV CSOs:

- WE.4.4.04 Explore technology to examine risks involved in not using appropriate safety skills and equipment for recreational purposes (e.g., bike riding, helmet use)
- HE.5.7.05 Demonstrate a variety of behaviors that help to avoid or reduce health risks

Length of Lesson:

30 minutes

Leading Questions:

1. *Dental sealants:* In addition to keeping your teeth clean, eating nutritious foods, and visiting your dentist regularly, there are several other ways you can help your teeth last a lifetime. Does anyone know what dental sealants are? (Some children may have already had sealants applied to their teeth and may be able to explain the process to the class.) After your permanent molars have come in — the large adult teeth toward the back of your mouth — your dentist can coat them with a special dental plastic that seals out decay. Applying sealants is quick, easy, and painless. Sealants can last for several years. How many of you have had sealants applied to your permanent teeth? Sealants are additional protection from decay that many of your parents did not have. When your parents were children, getting cavities was much more common than it is today. This does not mean that you can stop caring for your teeth. You still need to brush and floss every day! Sealants are added protection.

Show students a picture of a dental sealant being applied to a tooth. (If time permits, discuss students' experiences with sealants.) Dental sealants are a special plastic coating that protect teeth from decay.

2. Mouthguards. There is something else you can do to protect your teeth, but this is used to help protect your teeth from getting broken or knocked out. Does anyone know what I am thinking of? I will give you a hint. You use it for active sports. (Mouthguard) That is right! A mouthguard. How many of you have ever worn a mouthguard? A mouthguard is a piece of soft, molded plastic that covers your upper teeth. Your dentist can make one that fits your teeth exactly, or you can buy an unshaped mouthguard at the store that can be softened in boiling water and then shaped to fit over your teeth.

Show students the picture of a mouthguard. Can someone explain to the class how it fits on the teeth? Why is it so important to use a mouthguard? (Because if you lose your permanent teeth, new ones will not grow in to replace them) Do you know anyone who has had teeth knocked out during sports? Will those teeth ever grow back? Wearing a mouthguard is smart even if you do not really want to wear it.

Let's list all the sports and activities that we can think of where your teeth and mouth might be injured. (Remember to include non-team sports such as skateboarding, gymnastics, cheerleading, and rollerblading.) Mouthguards protect teeth from injury and should be used during all active sports. Your dentist can make a custom mouthguard, or a self-fitted mouthguard can be purchased at a store.

Recommended Activity:

1. Dental Sealants



Dental Sealants

Let's do an experiment to see if a plastic coating can protect our pretend tooth from the acid in vinegar. This test will demonstrate the effectiveness of sealants.

What you will need:

Plastic/foam cups

Tums®

Vinegar

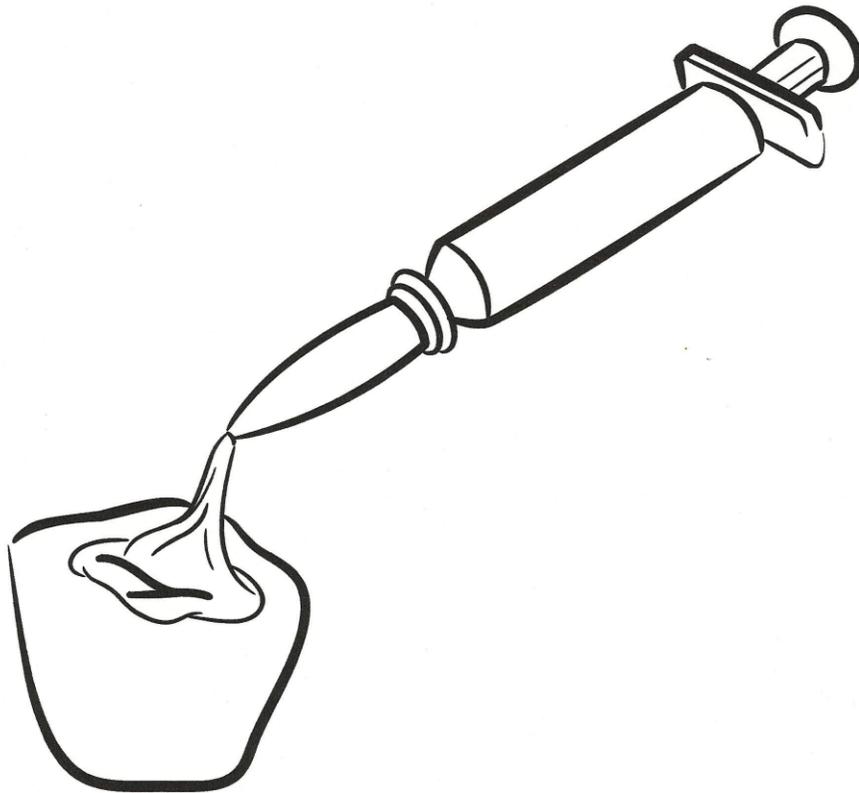
Plastic wrap

Tape

What to do:

Wrap one Tums® in plastic wrap and seal with transparent tape, leaving the other unwrapped. Place each in the bottom of a paper cup. Cover both with vinegar. Wait five minutes and pour off the liquid. Unwrap the plastic from the Tums® tablet. The plastic has protected the "tooth" from the acid. (You may need to divide your class into two groups so all the children can see.)

Sealant Application



Mouthguard



Lesson Plan Reference and Resource List

Materials were compiled from the following sources:

- www.ADA.org
- www.mouthhealthy.org
- Montana Department of Health www.dphhs.nt.gov
- www.teamnutrition.usda.gov
- South Carolina Department of Health www.scdhec.gov
- <http://etl2.library.musc.edu/sealants/>
- www.healthyteeth.org

The following resources are available and may be “checked out” by your regional oral health coordinator to serve as visual aids for each lesson.

- The Gross, Disgusting and Totally Cool Mouth Book
- Rethink Your Drink poster (shows drinks and how many teaspoons of sugar are in each)
- Dehydrated Soda (all liquids are removed and shows amount of sugar in a 20oz soda pop)
- Sugar Facts Test Tubes (test tubes show added sugar that is in snacks and drinks)
- Tooth Friendly Snacks (magnetic board with healthy/unhealthy snacks and germs)
- Dental Sealant Tooth Model
- Dental Decay Tooth Model
- Fizzics of Soda Display (large display showing added sugar and fat in soda)
- Clean Mouth/Dirty Mouth Display
- Mouth Model
- Dental Puppet

