



# School-Based Oral Health Handbook



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This handbook was made available by the generous support of the





*"We will never have a perfect world, but it's not romantic or naïve to work toward a better one." Steven Pinker*

Dear Educator(s):

Thank you for providing essential oral health education to your students!

Future Smiles is a Nevada nonprofit organization with a 501(c)(3) IRS designation. Our mission is to increase access to oral health care for at-risk populations ensuring dental wellness for all through care, education and service. We are proud to provide vital school-based oral health services to vulnerable youth, decreasing the incidence of dental disease, like tooth decay.

We hope that you will enjoy the lesson plans and activities that we have prepared especially for you. A teacher's impact on the life of a child transcends their grade level, lasting a lifetime.

Thank you for your commitment to your students' wellbeing and educational achievements!

Sincerely,

The Future Smiles Team  
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Las Vegas, NV 89102  
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Email: [futuresmiles@centurylink.net](mailto:futuresmiles@centurylink.net)  
Web: [www.futuresmiles.net](http://www.futuresmiles.net)

***FUTURE SMILES RECOMMENDED LESSON PLANS  
AND ACTIVITIES ON ORAL HEALTH***

The objective of these educational materials is to provide educators with the necessary tools, age-appropriate oral health vocabulary, and common-core standards to teach oral health concepts in his or her classroom.

- The program is designed to promote oral health for all age groups.
- The curriculum is designed specifically for educators, and is available in a presentation format that can be utilized in the academic setting.
- After each lesson it will be important to go over the supplemental worksheet on Recommended Brushing Skills by grade level.

We learn about our teeth at school



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## Introduction

### Importance of Oral Health

The Centers for Disease Control and Prevention, the leading national public health institute in the United States, have identified that tooth decay affects more children in the US than any other chronic disease.

- Dental pain in children can appear as:
  - Anxiety
  - Sleepiness
  - Problems eating
- Problems in Oral Health will affect:
  - Appearance
  - Self-esteem
  - Overall health
    - Serious Infection
    - Heart disease



**Introductory activity for all grades****A. Proper Brushing Technique****B. Classroom Objective**

Students will be able to demonstrate proper oral hygiene techniques, including brushing and dental flossing.

**C. Supplies needed**

Teacher Information Sheet: Recommended Brushing Skills.

Teacher should review this information for proper motion of the brush, positioning and technique.

**D. Mini Lesson**

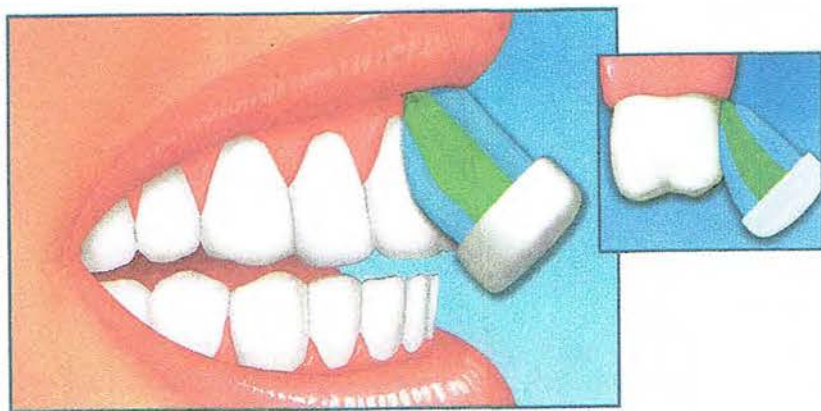
Display the Healthy Tooth and How to Keep Teeth Healthy worksheets and use them to identify the importance of brushing all parts of the tooth, the gum and the tongue.

- 1) Show students how to properly hold the toothbrush in their hand and how to angle the toothbrush.
- 2) Using the Healthy Tooth worksheet demonstrate how to do “big circles” with the brush on the teeth and “brush forward” on the tongue.
- 3) Demonstrate how to floss using flossers. “Hug and rub the tooth.”

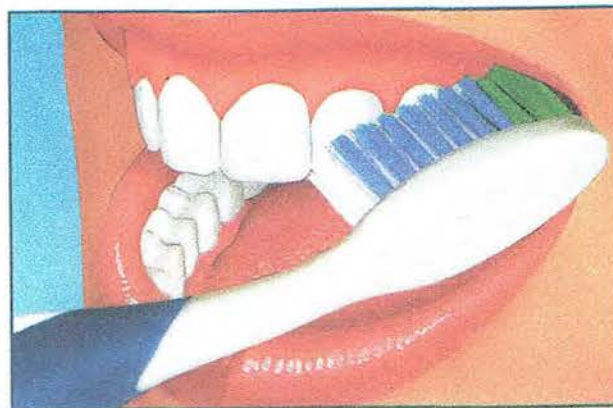




# Proper Brushing



- 1 Place bristles along the gumline at a 45° angle. Bristles should contact both the tooth surface and extend under the gumline.



- 2 Gently brush the outer tooth surfaces of 2-3 teeth using a vibrating back, forth and rolling motion. Move brush to the next group of 2-3 teeth and repeat.



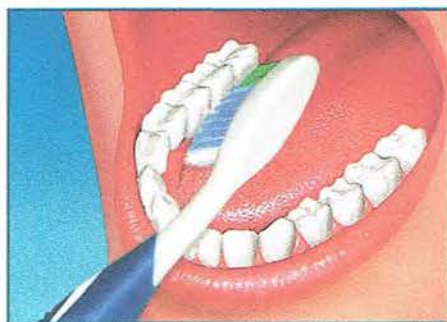
#525 GUM® Technique® Deep Clean

SUNSTAR

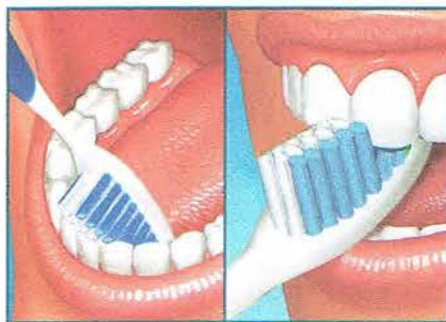
GUM BUTLER

1-800-528-8537 www.GUMbrand.com

# Proper Brushing



- 3 Maintain a 45° angle with bristles contacting the tooth surface and gumline. Gently brush using back and forth rolling motion along all of the inner tooth surfaces.



- 4 Tilt brush vertically behind the front teeth. Make several up and down strokes using the front half of the brush.



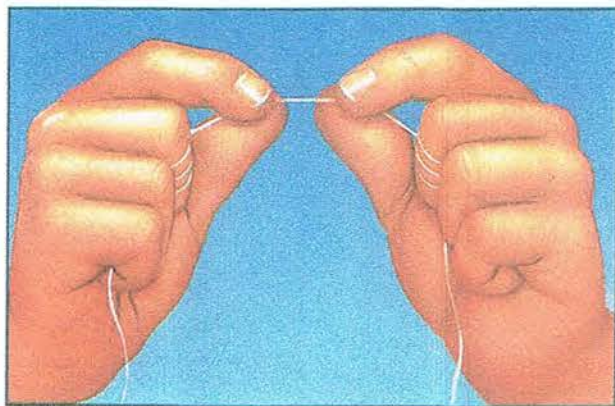
- 5 Place the brush against the biting surface of the teeth and use a gentle back and forth motion. Brush the tongue from back to front to remove odor-producing bacteria.

SUNSTAR

GUM BUTLER



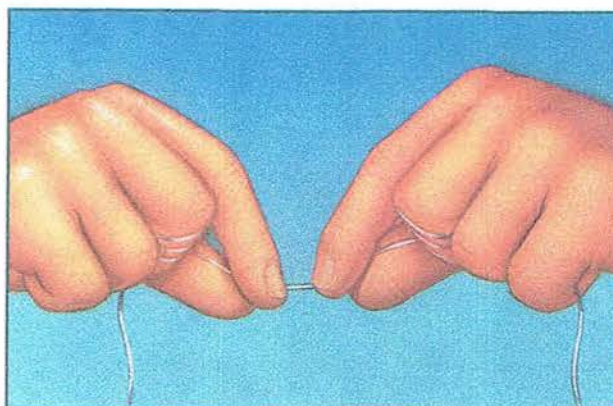
# Proper Flossing



- 1 Wind 18" of floss around middle fingers of each hand. Pinch floss between thumbs and index fingers, leaving 1" - 2" length in between. Use thumbs to direct floss between contacts of the upper teeth.



#1815 GUM® ButlerWeave® Floss 12yd



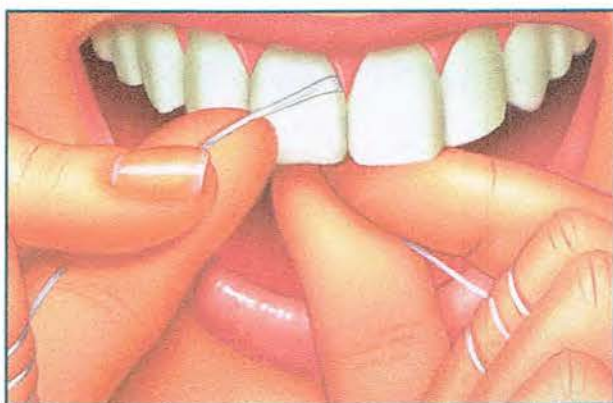
- 2 Keep a 1" - 2" length of floss taut between fingers. Use index fingers to guide floss between contacts of the lower teeth.

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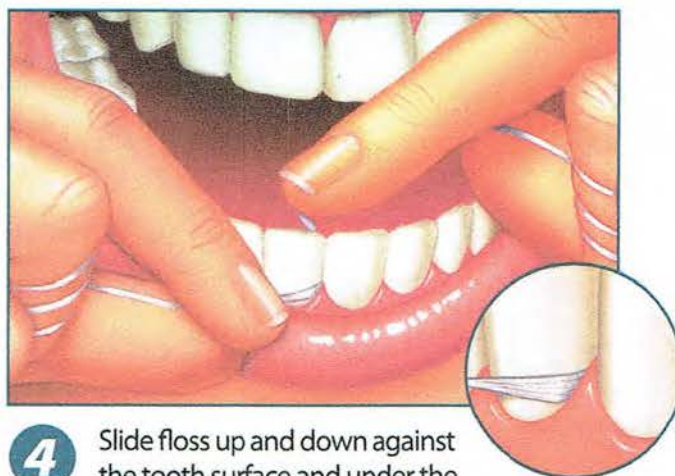
# Proper Flossing



- 3 Gently guide floss between the teeth by using a zig-zag motion. **DO NOT SNAP FLOSS BETWEEN YOUR TEETH.** Contour floss around the side of the tooth.



#2030 GUM® Expanding® Floss 11yd



- 4 Slide floss up and down against the tooth surface and under the gumline. Floss each tooth thoroughly with a clean section of floss.

SUNSTAR

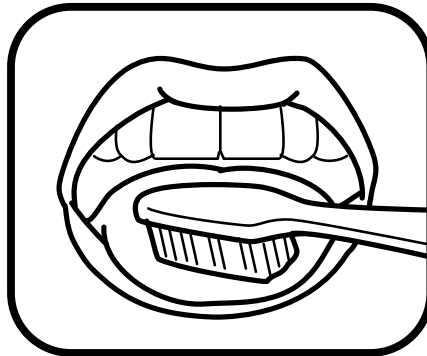
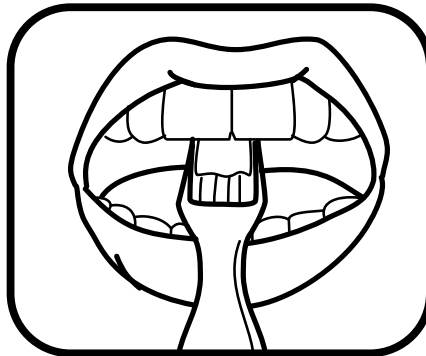
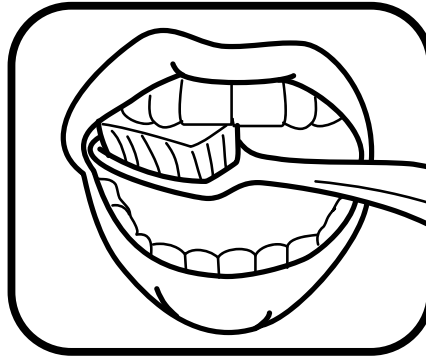
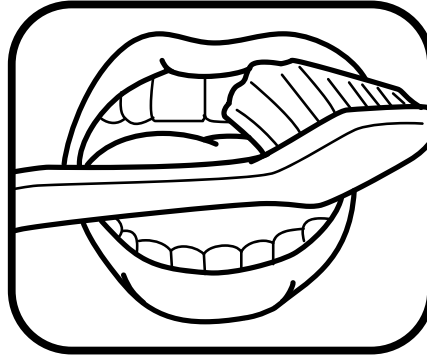
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# How to Brush

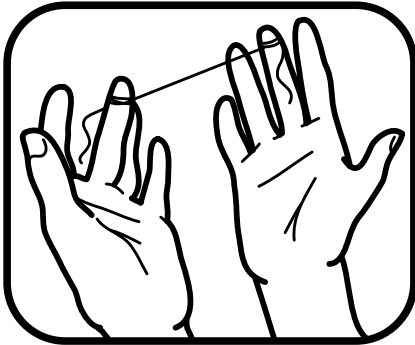
- Place the toothbrush at a 45-degree angle to the gums.
- Move the brush back and forth gently in short strokes.
- Brush the outer surfaces, the inside surfaces and the chewing surfaces of all teeth.
- To clean the inside surface of the front teeth, tilt the brush vertically and make several up-and-down strokes.
- Brush your tongue to remove bacteria and keep your breath fresh.



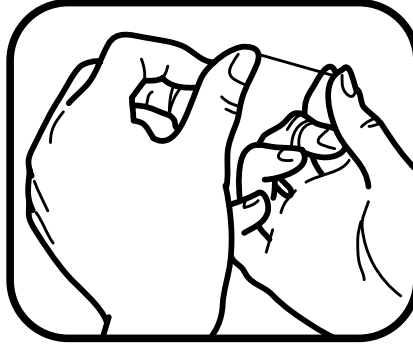
TURN UP YOUR  
**SMILE**  
**POWER!**



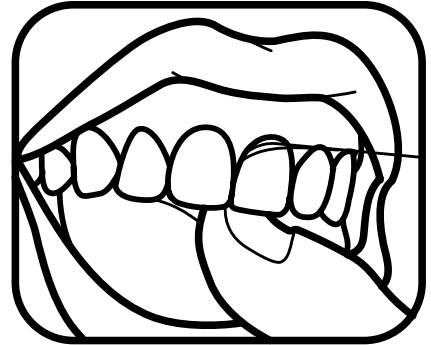
## How to Floss



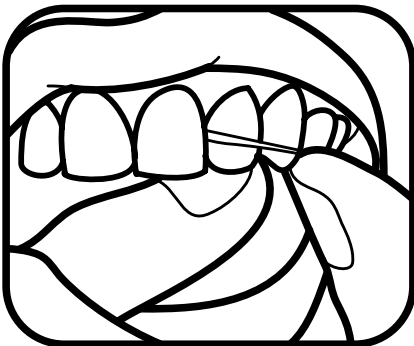
1. Use about 18 inches of floss wound around one of your middle fingers, with the rest wound around the opposite middle finger.



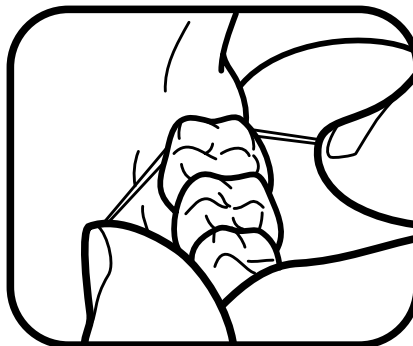
2. Hold the floss tightly between the thumbs and forefingers and gently insert it between the teeth.



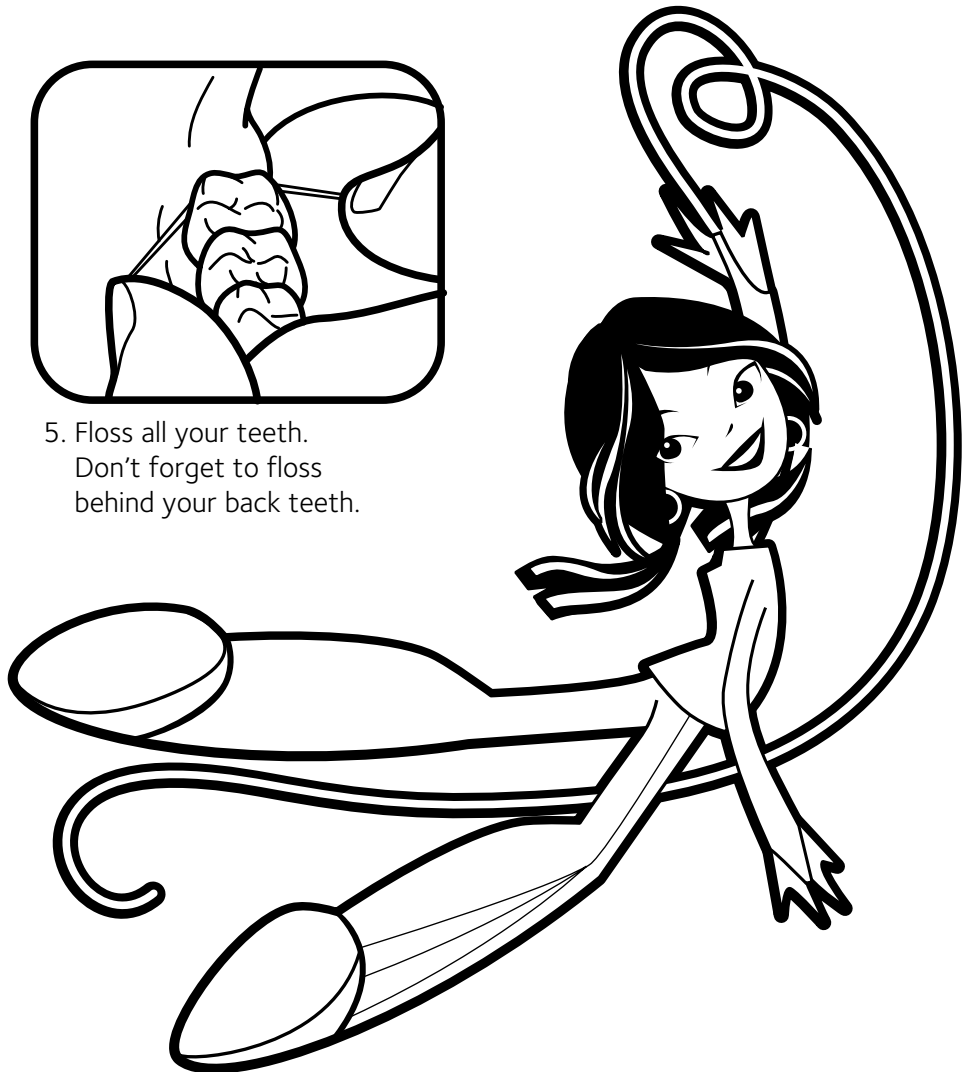
3. Curve the floss into a "C" shape against the side of the tooth.



4. Rub the floss gently up and down, keeping it pressed against the tooth. Don't jerk or snap the floss.



5. Floss all your teeth. Don't forget to floss behind your back teeth.



**Program Story**

Nancy Dockery, RDH

*Future Smiles Program Manager*



I had been seeing a little boy at Hollingsworth Elementary School for three years. We found out that he had a little sister in Pre-K. He took a consent form home and brought it back filled out. I went and pulled her out of class. She jumped up and exclaimed, “I’ve been waiting for you, forever!” So, we took her down and we cleaned her teeth and made sure that she got her smile bag, a pencil and she left with a beautiful, radiant smile on her face.

**Pre-Kindergarten/Kindergarten Lesson Plan****A. Objective**

Students will be able to explain at least one thing that “sugarbugs” are on teeth like and least one way to prevent cavities.

**B. Supplies needed**

Book Sugarbug Doug Dr. Ben Magleby

**C. Worksheet**

Sugarbug Doug Supplement 2 and Sugarbug Doug Supplement 3.

**D. Introductory Activity**

“Why do we love our teeth?”

Students will brainstorm about why teeth are important, examples are to: smile, express joy, chew food, talk and whistle.

Students can draw pictures of this activity and explain why they love their teeth and healthy smiles. Build a collage of words that describe why they love teeth.

**E. Mini Lesson**

Read Sugarbug Doug, stop and identify the ways the book mentions different things that Sugarbug Doug likes vs. those that Sugarbug Doug does not like.

**F. Guided Practice**

As a class, students will use Supplement 2 worksheet to cross out everything that Sugarbug Doug does not like and circle everything that he likes. Mention that some ways of keeping teeth healthy and strong include: having an adult help brush their teeth, brushing twice a day and visiting a dentist.

**G. Independent Practice**

Students will draw and color Supplement Worksheet 3 of things that Sugarbug Doug likes and things that he doesn't like, monitor students for this activity.

**E. Closing**

Round up students and have them share in a group the things Sugarbug Doug likes and the things he does not like. These will be the ways to keep their teeth healthy and strong.

**F. Assessment based on Objective**

Students will be able to identify at least one thing that a sugarbug likes and at least one way to prevent cavities.

**G. Common Core Standards:**CCSS.ELA-Literacy.SL.K.4

Describe familiar people, places, things, and events and, with prompting and support, provide additional detail

CCSS.ELA-Literacy.SL.K.5

Add drawings or other visual displays to descriptions as desired to provide additional detail.

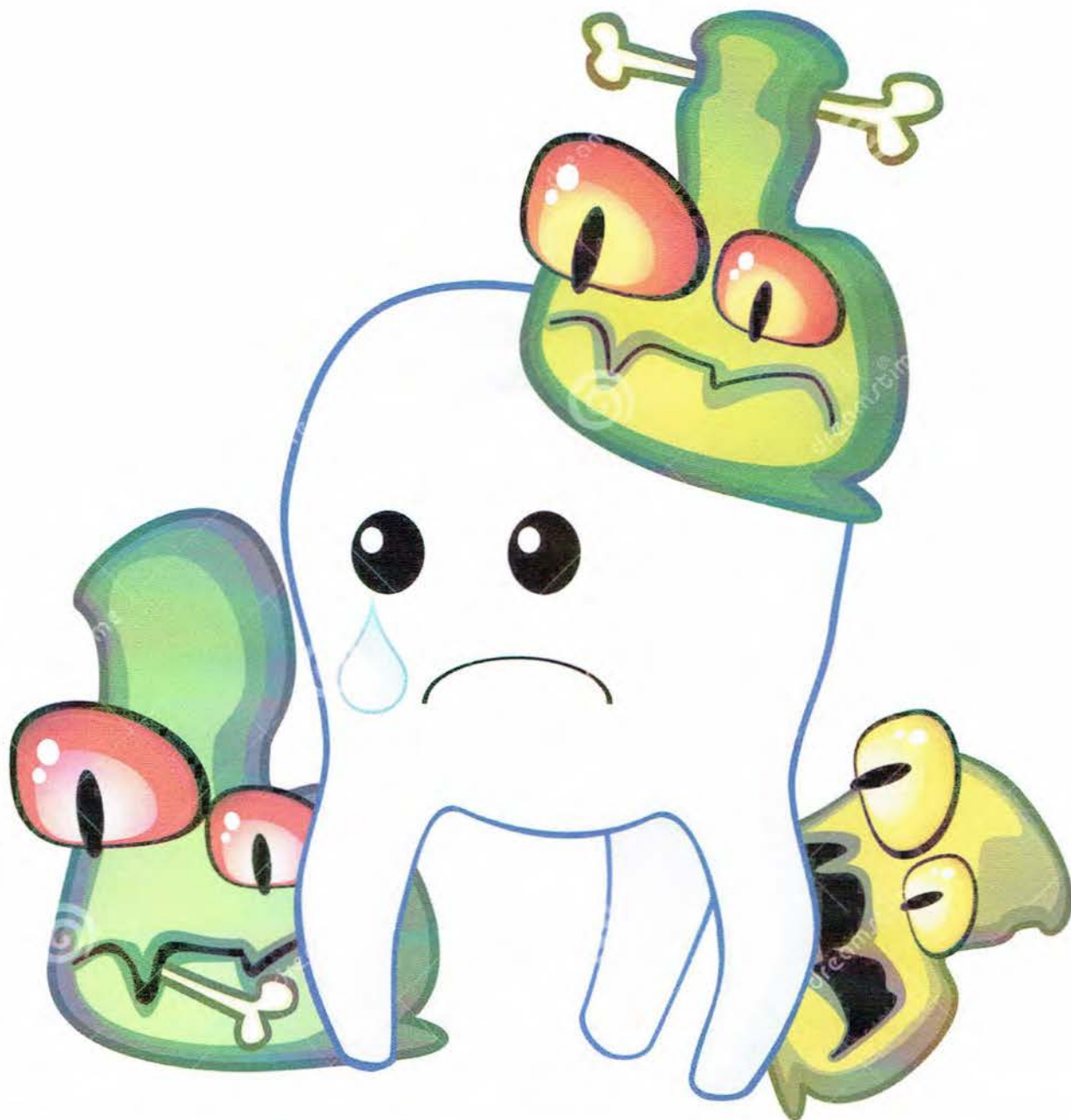
CCSS.ELA-Literacy.W.K.1

Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., *My favorite book is...*).

CCSS.ELA-Literacy.W.K.2

Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.





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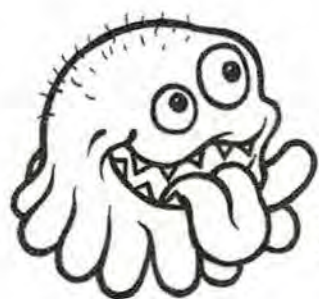
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Name: \_\_\_\_\_

Date: \_\_\_\_\_



Draw some things  
that sugarbugs like.



Draw some things that  
sugarbugs don't like.

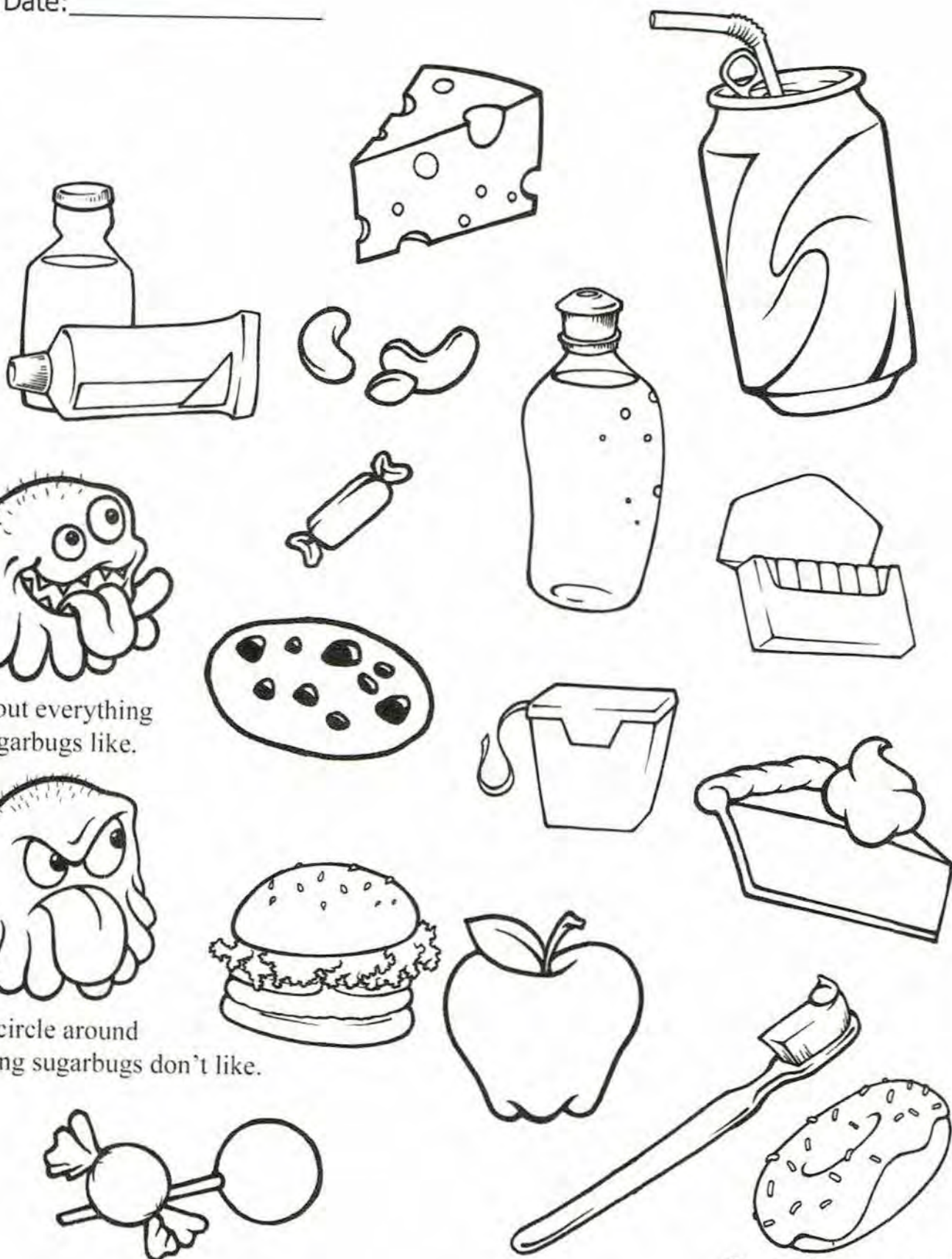
Supplement 3

[www.sugarbugdoug.com](http://www.sugarbugdoug.com)

Copyright © 2008 Benjamin Magleby DDS 13

Name: \_\_\_\_\_

Date: \_\_\_\_\_



Cross out everything  
that sugarbugs like.

Draw a circle around  
everything sugarbugs don't like.

Supplement 2

**Pre-K/Kindergarten Pre/Post Assessment**

I will read you a question.

Circle the happy tooth if your answer is YES. Circle the Sad tooth if your answer is NO.

1. We should brush our teeth two times a day?



**Happy (Feliz)**



**Sad (Triste)**

2. Should Mommies or Daddies (big person) help us brush our teeth?



**Happy (Feliz)**



**Sad (Triste)**

3. Going to a dentist can help us keep our teeth clean and happy?



**Happy (Feliz)**



**Sad (Triste)**

4. Do people want to see use smile with dirty teeth?



**Happy (Feliz)**



**Sad (Triste)**



Dear Educator:

Thank you for your help with this Pre/Post Test. We appreciate your interest and commitment to the better health of your students. It is important to Future Smiles to receive accurate data so that we may continue to receive funding to provide free services to children. 😊 Please ask a staff member from Future Smiles to answer any questions.

Thank you in advance,

Future Smiles

School name \_\_\_\_\_ Date \_\_\_\_\_

Teacher name \_\_\_\_\_ Grade \_\_\_\_\_ Number of students present \_\_\_\_\_

Questions	Pre-Test YES	Pre-Test NO	Post-Test YES	Post-Test NO
1. I should brush my teeth at least two times a day?				
2. It's OK to ask a grown-up (big person) for help brushing my teeth?				
3. Going to the dentist can keep our teeth clean and happy?				
4. Do people want to see us smile with dirty teeth?				

**Program Story**

Nataly Hernandez

*Future Smiles Program Resource Coordinator*



A Clark High School student was brought in for an appointment with a CSN hygiene student. Our patient did not speak English and the hygiene student could not communicate with her. Xochi (our Program Assistant) was brought into the operatory room to translate for the Spanish speaking patient. Our patient was very quiet and appeared to be scared. Xochi was able to translate and keep our patient informed and

comfortable throughout the appointment. She was originally from Guatemala and lived in an indigenous community where dental care was never present, so we saw her for her first dental appointment. She did well and was given a pass to go back to class. That same day when school was over, our patient came back to the office and brought a friend with her. Her friend scheduled an appointment and was eventually seen. It was amazing to see a frightened patient become so comfortable and grateful that she even brought a friend back. They were both very grateful!

**First Grade Lesson Plan****A. Objective**

Students will be able to describe what to expect during a Future Smiles dental hygiene and/or dentist appointment.

**B. Supplies needed**

Book The Bernstein Bears Visit the Dentist by Stan and Jan Bernstein or What to Expect When You Go to the Dentist (What to Expect Kids) by Heidi Murkoff, or Just Going to the Dentist (Little Critter) by Mercer Mayer.

**C. Worksheets**

Dentist's Office, Tools for Checking Teeth and Tools for Cleaning Teeth. Dental Office Definition worksheet.

**D. Introductory Activity**

Ask students to raise their hand if they have been to the dentist before? Great! That's what we will be talking about today.

**E. Mini Lesson**

Read either The Bernstein Bears Visit the Dentist and/or Just Going to the Dentist (Little Critter) You may choose to read both if time permits.

Please note:

Bernstein Bears Visit the Dentist emphasizes more of the instruments (tools) used at a Dental Visit. Just Going to the Dentist (Little Critter) please note that you will want to use the word dental hygienist instead of nurse. This book also does not highlight the instruments used a Dental appointment but it does provide other background information for a dental appointment.

**F. Guided Practice**

Teachers will use worksheets: Tools for Checking Teeth and Tools for Cleaning Teeth. Using the Definition worksheet to define the tools on these worksheets, have student color in the tool as it is defined. Walk around the classroom to make sure students are clearly identifying the different tools.

**G. Independent Practice**

Students will color the Dentist's Office worksheet on their own to reinforce the set-up and procedure of a dental visit.

**H. Closing**

Students will share their pictures they have colored with each other.

**I. Assessment based on the objective**

Students will be able to identify at least three things to expect at a dental hygiene or dental visit



**J. Common Core Standards****CCSS.ELA-Literacy.SL.1.4**

Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.

**CCSS.ELA-Literacy.SL.1.5**

Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.

**CCSS.ELA-Literacy.W.1.1**

Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.

**CCSS.ELA-Literacy.W.1.2**

Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.







**Dentist's Office**

**La oficina dental**

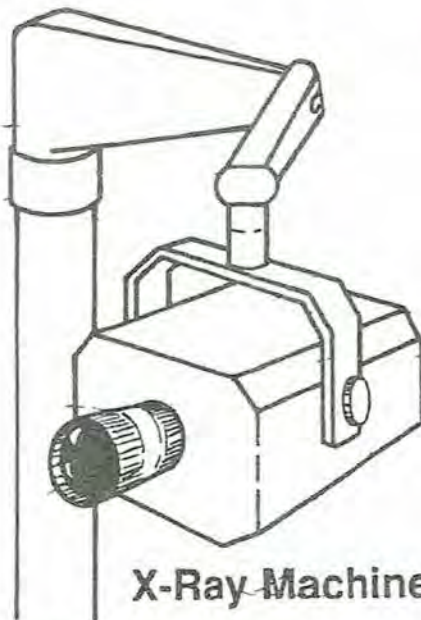
# Instrumentos para revisar dientes Tools for Checking Teeth



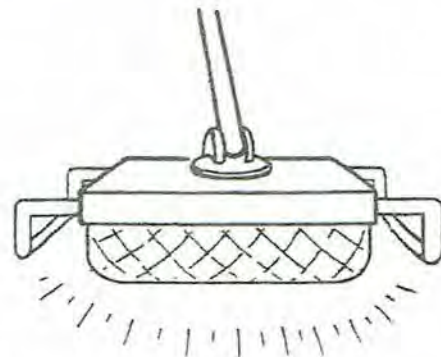
Mirror  
espejo



Explorer  
explorador

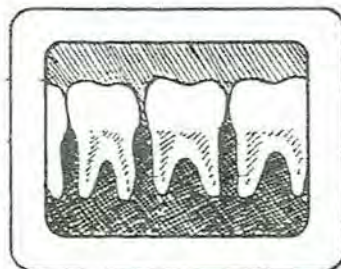


X-Ray Machine  
máquina para rayos-x



Lamp  
lámpara

X-Ray Picture  
radiografía

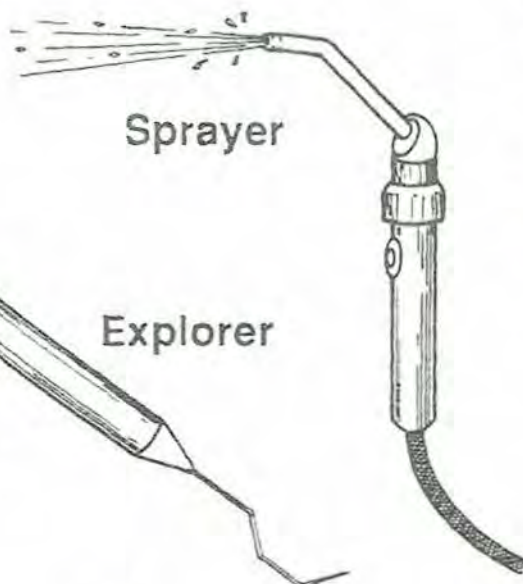




# Dental Tools

Name \_\_\_\_\_

Color the tools a dentist would use.



Sprayer

Explorer

Binoculars

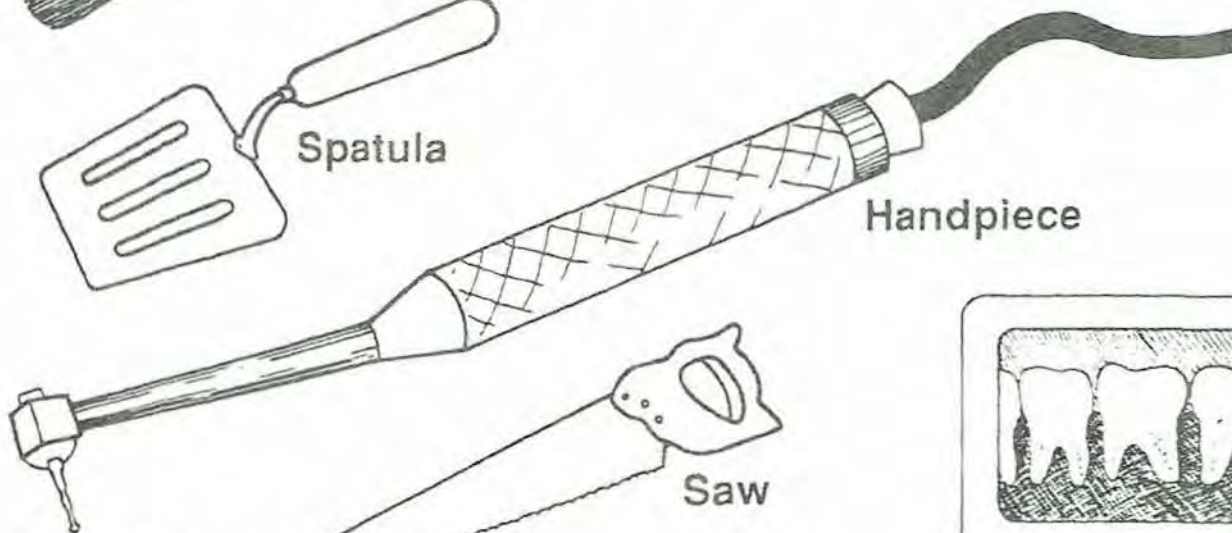


Paintbrush

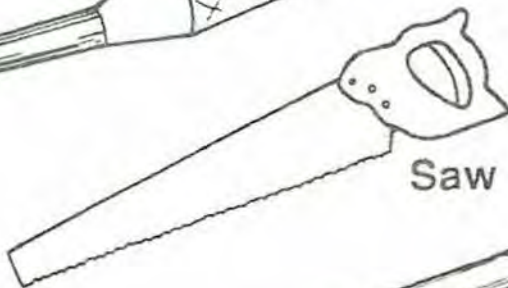


Spatula

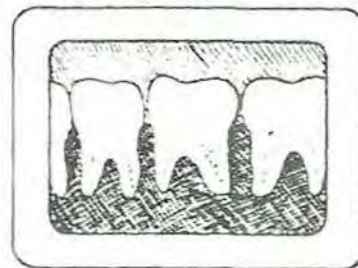
Handpiece



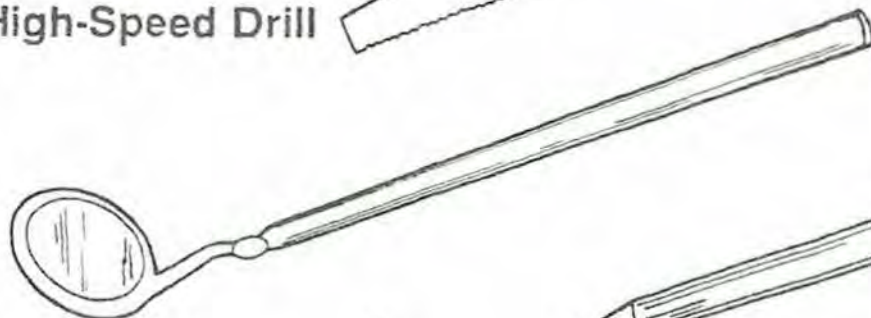
Saw



High-Speed Drill

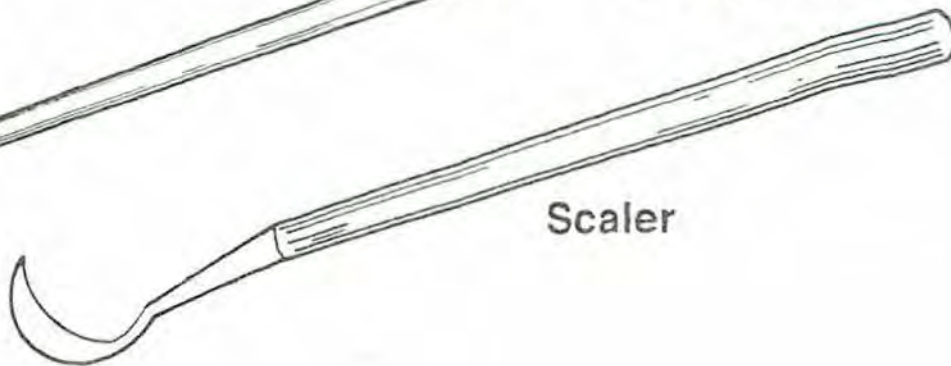


X-Ray Film



Dental Mirror

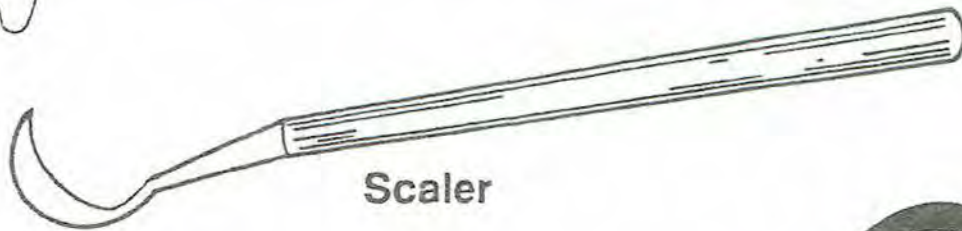
Scaler



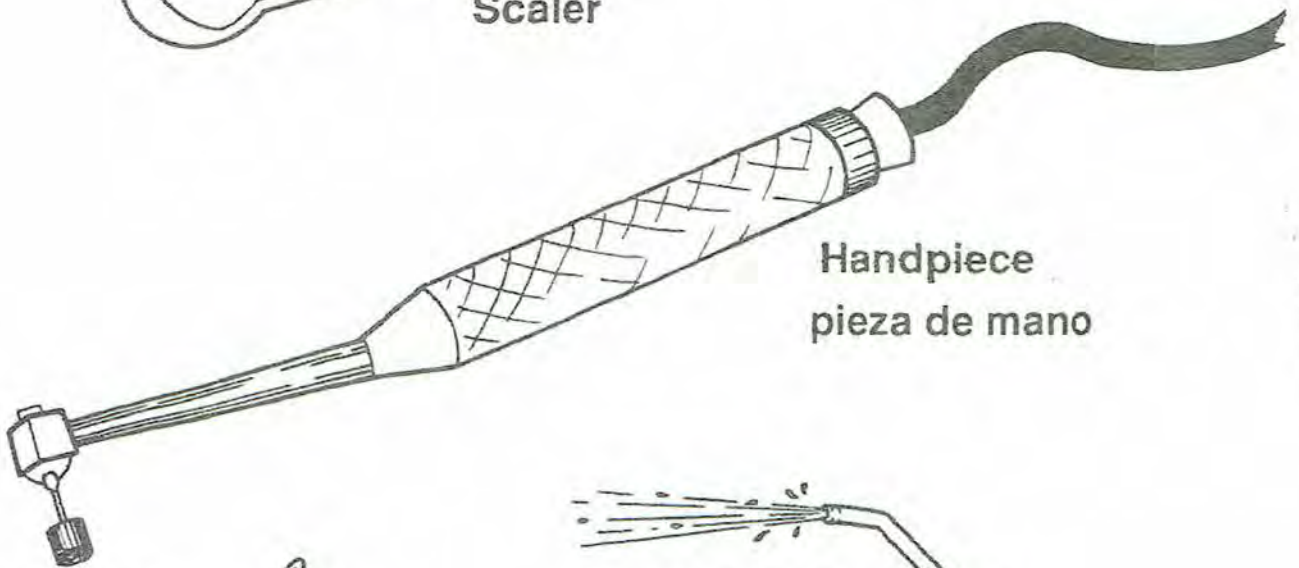


# Tools for Cleaning Teeth

## Instrumentos para limpiar dientes



Scaler

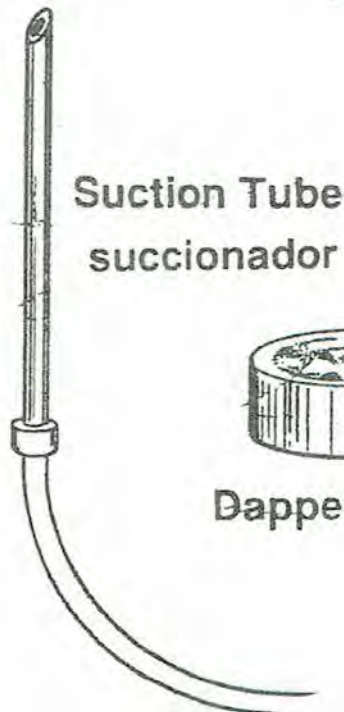


Handpiece  
pieza de mano

Rubber Cup  
fulidor



Water Spray  
agua



Suction Tube  
succionador



Dappen Dish

**First Grade Pre/Post Assessment**

I will read you a question.

Circle the happy tooth if your answer is YES. Circle the Sad tooth if your answer is NO.

1. Does a dental hygienist use a mirror to look at our teeth?



**Happy (Feliz)**



**Sad (Triste)**

2. Does a dental hygienist use paintbrushes on our teeth?



**Happy (Feliz)**



**Sad (Triste)**

3. A dental hygienist's job is to help make sure our teeth are clean and health?



**Happy (Feliz)**



**Sad (Triste)**

4. If a tooth hurts we should ask an adult (big person) to help us by making a dental appointment to get our teeth checked?



**Happy (Feliz)**



**Sad (Triste)**



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Thank you in advance,

Future Smiles

School name \_\_\_\_\_ Date \_\_\_\_\_

Teacher name \_\_\_\_\_ Grade \_\_\_\_\_ Number of students present \_\_\_\_\_

Questions	Pre-Test YES	Pre-Test NO	Post-Test YES	Post-Test NO
1. Does a dental hygienist use a mirror to look at our teeth?				
2. Does a dental hygienist use paintbrushes on our teeth?				
3. A dental hygienist's job is to help make sure our teeth are clean and health?				
4. If a tooth hurts we should ask an adult (big person) to help us by making a dental appointment to get our teeth checked?				

**Program Story**

Anastasia Cheremynky, RDH

*Future Smiles Dental Hygienist*



Working for Future Smiles, I come across children that do not have a consistent home, clean clothes, someone to talk to, somewhere to feel safe and cared for – they do not have peace and warmth in their life that every child requires so badly. I try to be that for them, even if it is just for the 30 minutes a year that they are in my chair. A gentle smile, a touch of a warm hand, a compliment, or a reassuring word is what I try to incorporate, in addition to the dental services we provide. Because we are not just cleaning their teeth, we might be the only sure and positive thing in their life that day, and just maybe that one day a year will change their lives.

**Second Grade Lesson Plan****A. Objective**

Students will be able to identify four important vocabulary words related to oral health and identify five ways to keep their teeth healthy.

**B. Supplies needed**

Book Sugarbug Doug by Dr. Ben Magleby

**C. Worksheets**

Supplement Tooth Decay.

**D. Vocabulary Display**

Plaque, cavity (dental caries/decay), tartar (calculus), fluoride and sealant.

**E. Introductory Activity**

Have the students become detectives. Tell them a story about what you did this morning to get ready for work (but leave off brushing your teeth). Explain how important it is to brush your

teeth every morning before coming to school and before going to bed. Let's learn about how to brush our teeth properly.

#### F. Mini Lesson

Read Sugarbug Doug. Point out the vocabulary words below.

#### G. Guided Practice

Write the Vocabulary words below on the board and explain the meaning of these words from the book, have students write sentences using the new vocabulary words:

New Word	Definition
Cavity (dental caries or decay)	When enamel is weakened by acid from the germs/bacteria found in plaque a "black hole" will form, sometimes called a "rotten hole" in our teeth. Cavities are the result of a combination of plaque and sugar producing an acid which dissolves and destroys the hard tooth surface (enamel).  <b>tooth + plaque + sugar = cavity</b>
Enamel	The hard outer surface of our teeth. It is very strong and rich in mineral-calcium and phosphate.
Fluoride	Found in water; fluoride can make our teeth strong to help protect them against the acid produced by germs/bacteria that live in the plaque.
Plaque	A sticky film made up of germs that cause tooth decay. Too much plaque may result in cavities. This is what makes up Sugarbug Doug's house.
Sealant	A strong plastic coating that is placed with a paintbrush by a dental hygienist over the grooves of our teeth to protect them from the acid formed by germs/bacteria.
Tatar (Calculus)	When plaque has been on your teeth for a long time it will hardened on your teeth. This hard material can only be removed by a dental hygienist. The stronger houses that Sugarbug Doug lives in, that need to be scraped off to be removed.

**H. Independent Practice**

Have students fill out Worksheet 6 on their own. Monitoring for accuracy.

**I. Closing**

Students will have opportunity to share with a partner the ways to keep teeth healthy from their worksheet.

**J. Assessment based on Objective**

Students will be able to identify ways of keeping their teeth healthy.

**K. Common Core Standards**CCSS.ELA-Literacy.W.2.3

Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.

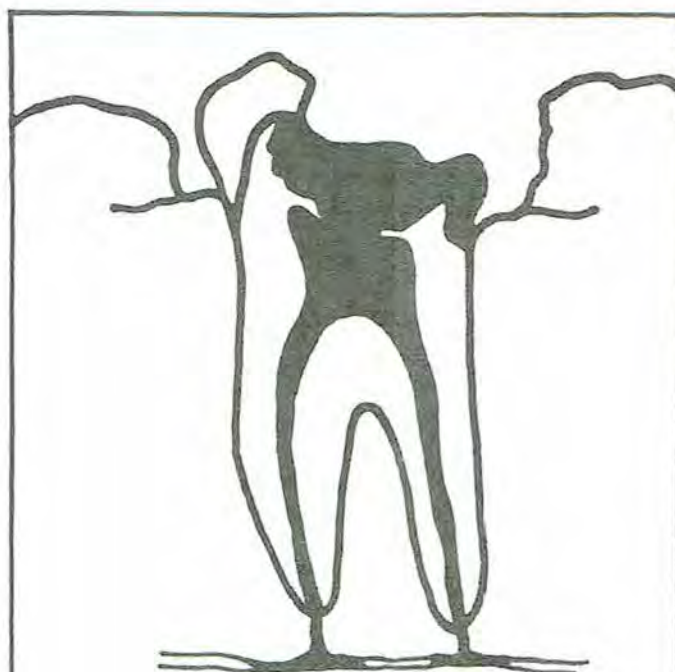
CCSS.ELA-Literacy.RL.2.1

Ask and answer such questions as *who*, *what*, *where*, *when*, *why*, and *how* to demonstrate understanding of key details in a text.

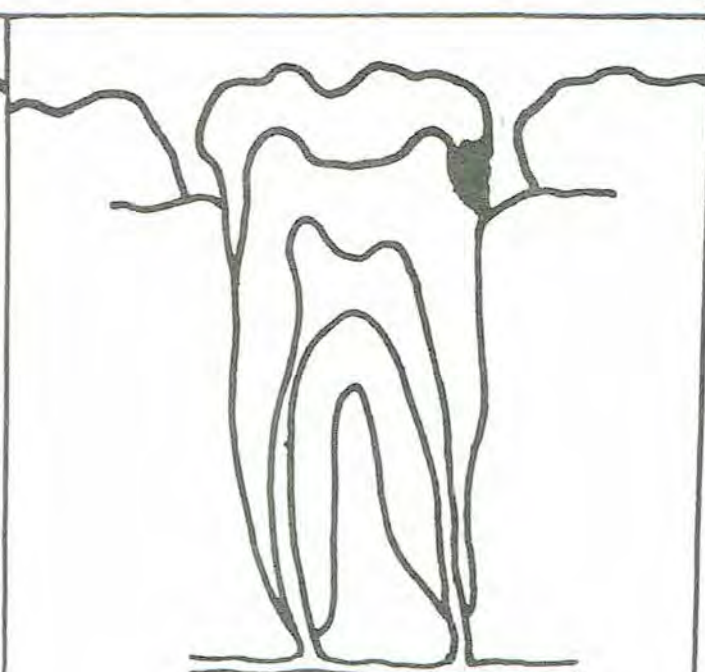




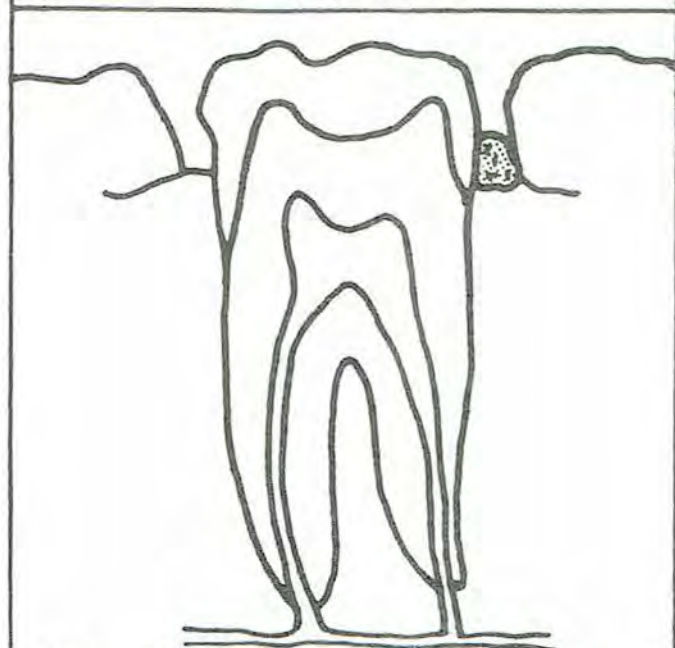
# Tooth Decay



Now the decay is much, much worse, and the tooth may have to be removed. What can we learn from this?



One tooth has a cavity. It is small. A dentist can fix this easily. What will happen if this tooth is not treated?



A small piece of food has been left between two teeth. The sugar in the food will mix with the plaque to form an acid. What will happen if these teeth do not get brushed?



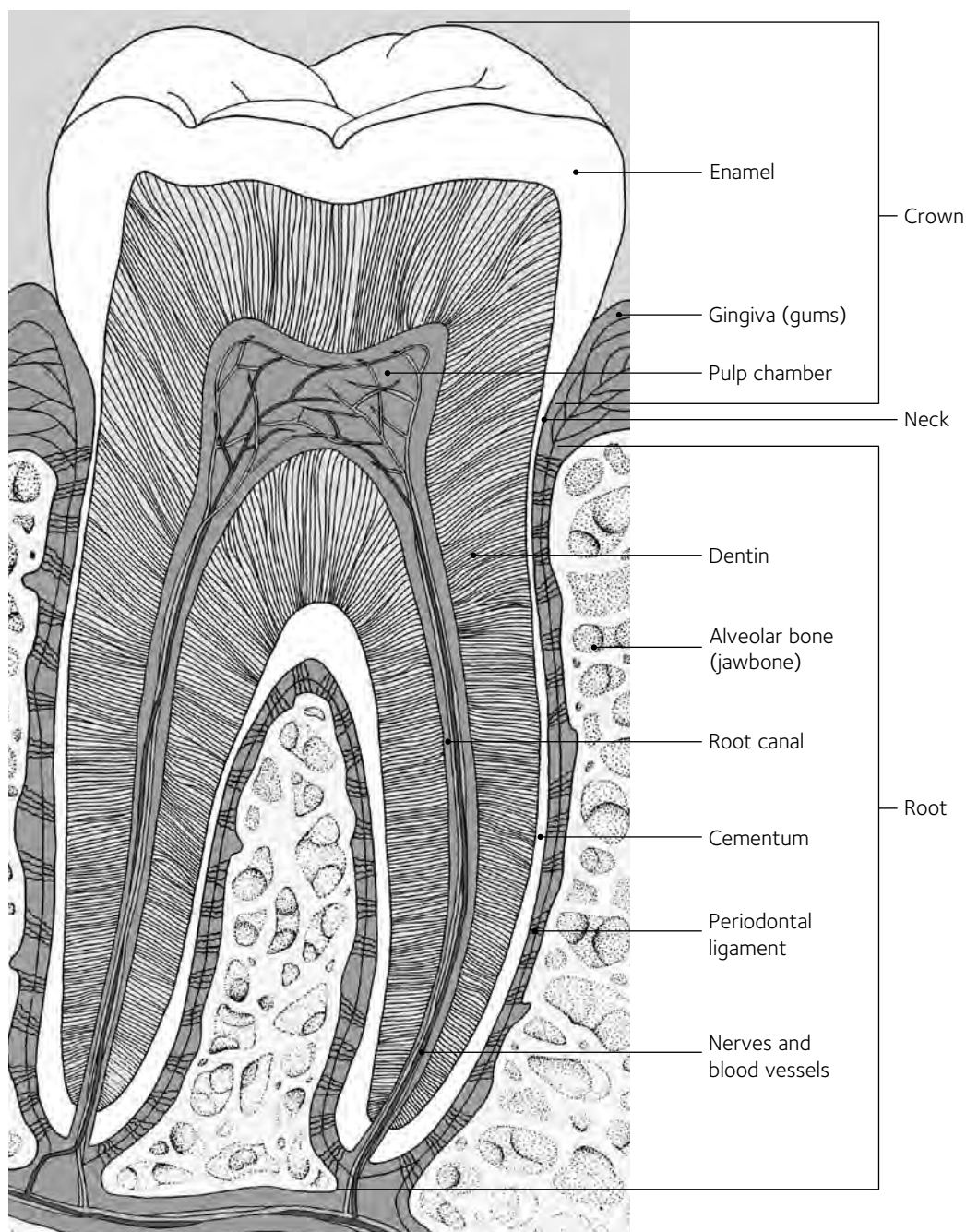
The decay has spread to another tooth. Soon this cavity will become painful. It can still be saved. What should be done?

This is not in the correct order.  
Cut the scenes apart and glue them in order  
on a sheet of construction paper.

# TURN UP YOUR SMILE POWER!

February is National Children's  
Dental Health Month

## Tooth Anatomy





February is National Children's Dental Health Month

TURN UP YOUR

**SMILE POWER!**

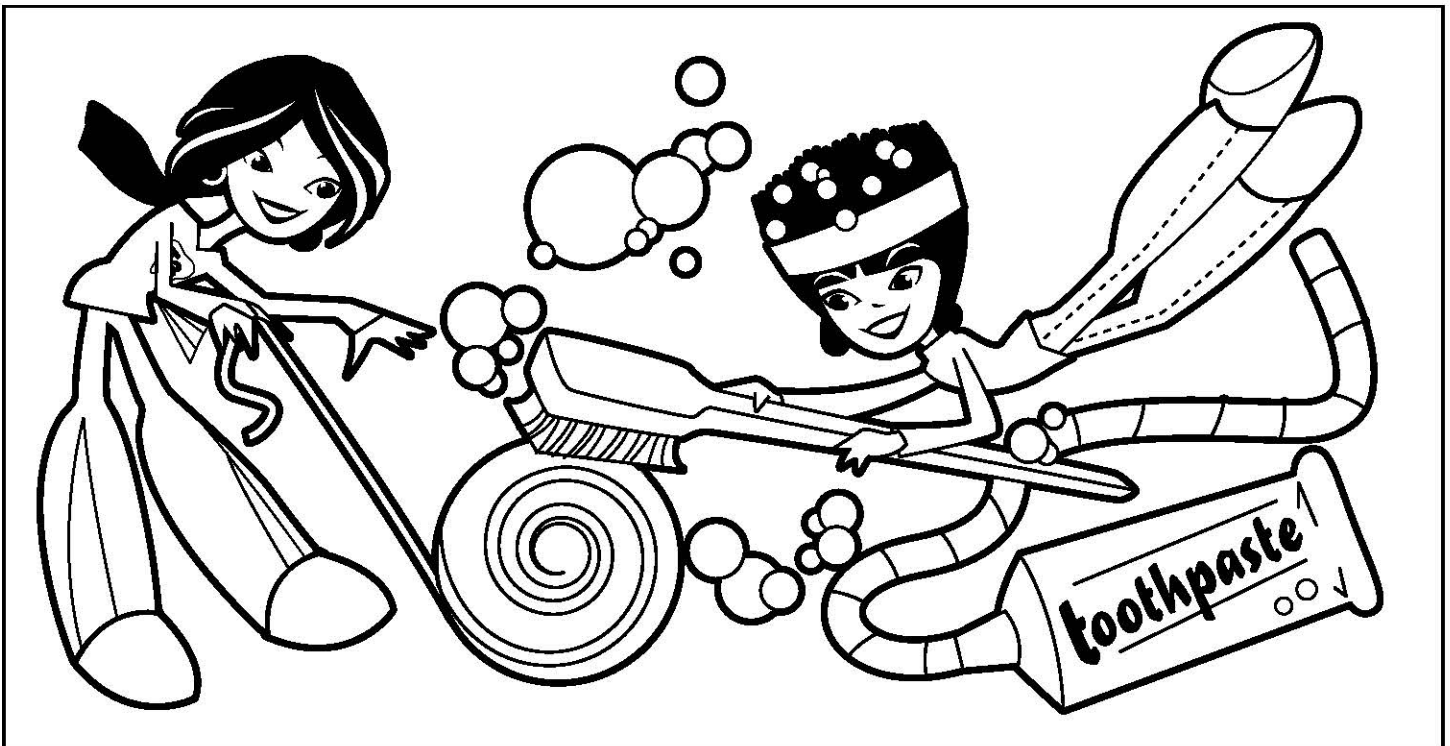
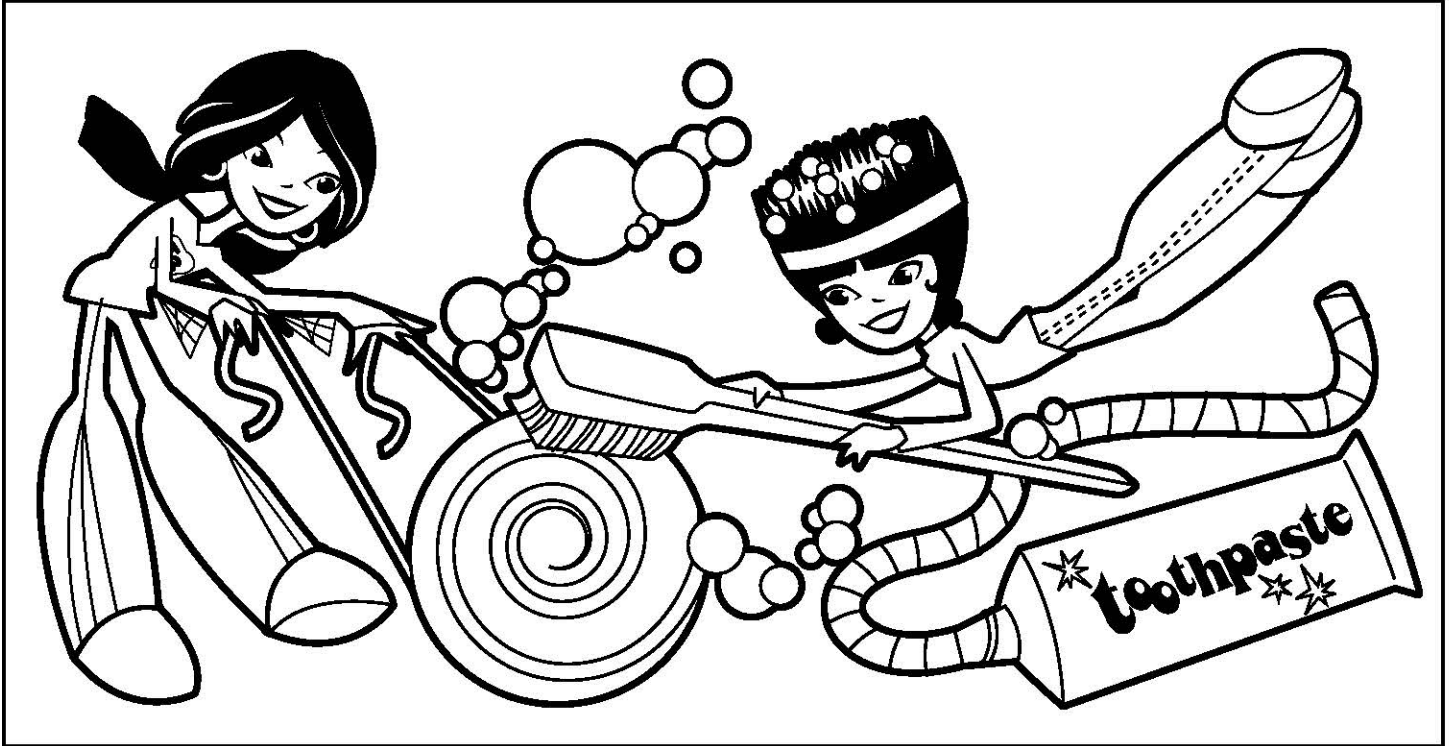
# Coloring Sheet



February is National Children's Dental Health Month

# Find the Differences

Can you find at least 10 differences? Can you find 20?





**Second grade Pre/Post Assessment**

I will read you a question.

Circle the happy tooth if your answer is YES. Circle the Sad tooth if your answer is NO.

1. Can a sugarbug in our mouth jump from one tooth to the next?



**Happy (Feliz)**



**Sad (Triste)**

2. One way to keep teeth healthy is to drink water with fluoride?



**Happy (Feliz)**



**Sad (Triste)**

3. The safest and happiest area of our teeth for sugarbugs is between the grooves of our teeth?



**Happy (Feliz)**



**Sad (Triste)**

4. Sealants are protectors put on our teeth that prevent cavities?



**Happy (Feliz)**



**Sad (Triste)**

Dear Educator:

Thank you for your help with this Pre/Post Test. We appreciate your interest and commitment to the better health of your students. It is important to Future Smiles to receive accurate data so that we may continue to receive funding to provide free services to children. 😊 Please ask a staff member from Future Smiles to answer any questions.

Thank you in advance,

Future Smiles

School name \_\_\_\_\_ Date \_\_\_\_\_

Teacher name \_\_\_\_\_ Grade \_\_\_\_\_ Number of students present \_\_\_\_\_

Questions	Pre-Test YES	Pre-Test NO	Post-Test YES	Post-Test NO
1. Can a sugarbug in our mouth jump from one tooth to the next?				
2. One way to keep teeth healthy is to drink water with fluoride?				
3. The safest and happiest area of our teeth for sugarbugs is between the grooves of our teeth?				
4. Sealants are protectors put on our teeth that prevent cavities?				

**Program Story**

Xochitl Flores

*Future Smiles Program Assistant*

Working with Future Smiles has given me the opportunity to help my community. I grew up in Jerez, Zacatecas, Mexico. In my town there was a lack of resources and we also lacked medical and dental health services. As a child I never went to see a dentist. When I moved to the United States my parents were able to take us to the dentist. Having the opportunity to help those in the same situation that I grew up in, is important and rewarding to me.



I was working at an EPOD site, Martinez Health Center, one student I retrieved from the school was beaming with joy at his opportunity to go see our hygienist. He was chatty and friendly. When we arrived to the operatory room and he saw the hygienist and he was celebrating. He exclaimed “Are you going to be the one to fix me?” He thought there was something wrong with him due to his dental situation. He obeyed every instruction from the hygienist. He had assumed that his lack of dental care was a big problem “that needed to be fixed.” He was so thankful for the cleaning he received. He thought that after this visit he was finally fixed. Even though he was little he knew that he needed this dental cleaning and his self-esteem with his smile was completely changed after his visit with us. Kids should know that they are our future and should feel proud of their smiles.

**Third Grade Lesson Plan****A. Objective**

Student will be able to explain the difference between healthy and unhealthy foods and how unhealthy foods affect the health of their teeth.

**B. Supplies needed**

Book Gregory, The Terrible Eater by Michelle Sharma and Good Enough to Eat: A Kid’s Guide to Food and Nutrition by Lizzy Rockwell. Nutritional Food Labels with sugar.

**C. Worksheet**

Bacteria/Tooth picture for display. Sugar names in foods worksheet.

**D. Introductory Activity**

Teacher will ask students to “popcorn out” the foods they like to eat. Teacher will identify if the food contains lots of sugar. Students will proceed to “thumbs up” if they think the food/snack is healthy or unhealthy.

**E. Mini Lesson**

Read Good Enough to Eat: A Kid’s Guide to Food and Nutrition

Highlight the importance of the six nutrients found in the book = Carbohydrates, protein, fat, water, vitamins and minerals.

After reading the book, display the picture of the tooth with the bacteria. This bacteria is called *S. mutans*. *S. mutans* sounds a lot like the word “mutants,” which is another word for invaders/aliens. This bacteria invades our mouth and loves to live in the crevices and pits of our teeth. Have students use their tongue to feel around where the bacteria is living in their mouth.

*S. mutans* love to eat carbohydrates, particularly sugar. Foods like candies, cookies, soda, etc. are high in sugar. The *S. mutans* then use this sugar to create an acid. They take this acid and spray it all over the teeth causing cavities (big holes in our teeth). To prevent *S. mutans* from destroying our teeth: we need to brush after having foods high in sugar, brush twice a day regardless of what we eat throughout the day, floss at least once a day, and choose healthy snacks.

**F. Guided Practice**

Teacher and students will use the worksheet of Sugary Foods and the provided nutritional food labels to identify the foods with high sugar.

**G. Independent Practice**

Students will write a story explaining how *S. mutans* attack our teeth and what to do to prevent cavities.

**H. Closing**

Students will have ability to share their stories with a partner the sugary foods that they found with the rest of the class.

Read Gregory, the Terrible Eater to end the unit.



### I. Assessment based on Objective

Students will be able to identify the difference between healthy foods and unhealthy foods.  
Students will be able to explain how teeth are damaged when eating foods with a high sugar content.

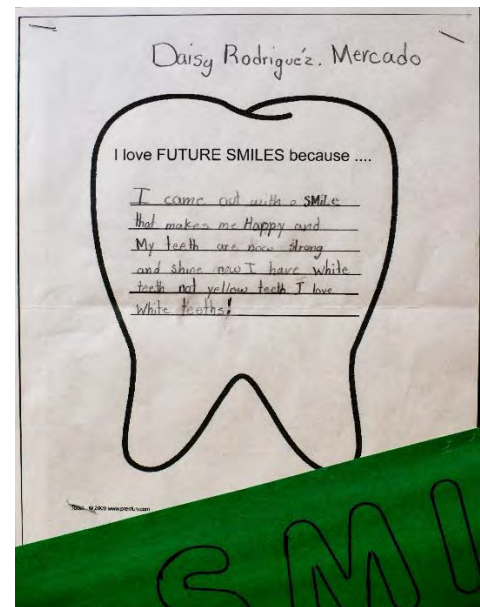
### H. Common Core Standard

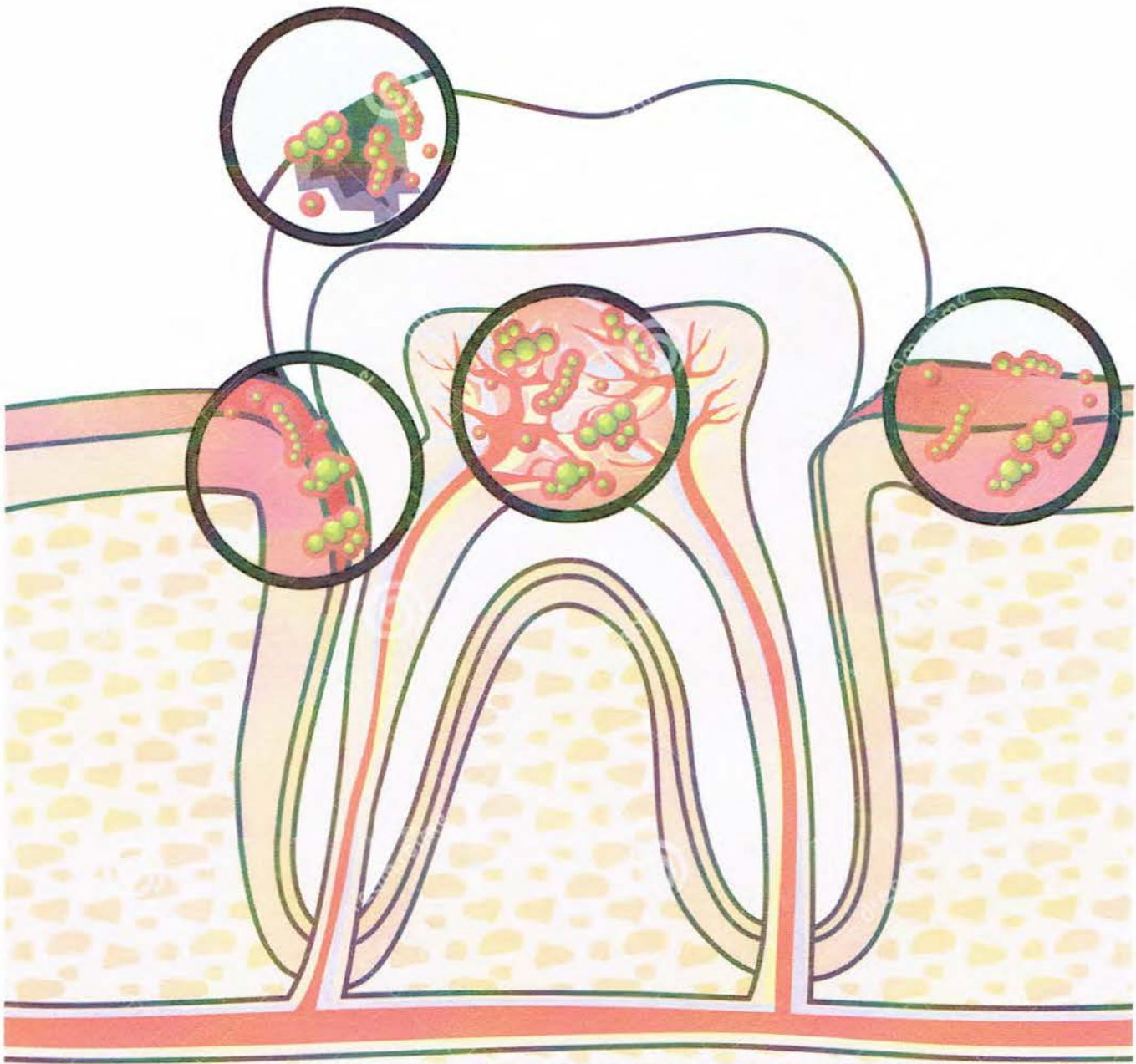
#### CCSS.ELA-Literacy.RL.3.1

Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

#### CCSS.ELA-Literacy.W.3.1.a

Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.





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## Names for Sugar in Foods

Sugar

Dextrose

Brown sugar

Maltose

Honey

Molasses

Glucose

Raw sugar

Sucrose

Cane sugar

Fructose

Corn syrup

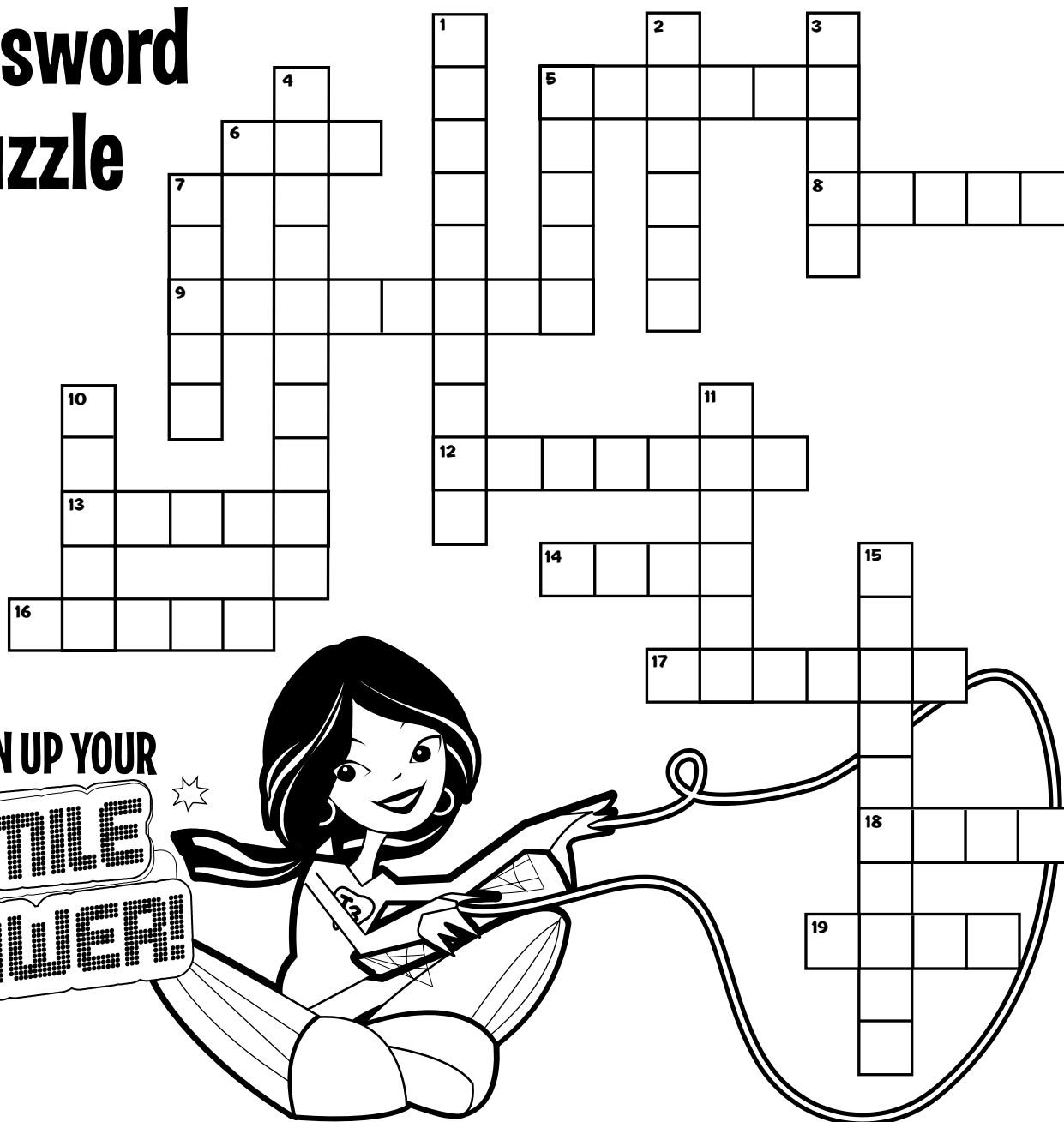
Corn sweetener

High fructose corn syrup

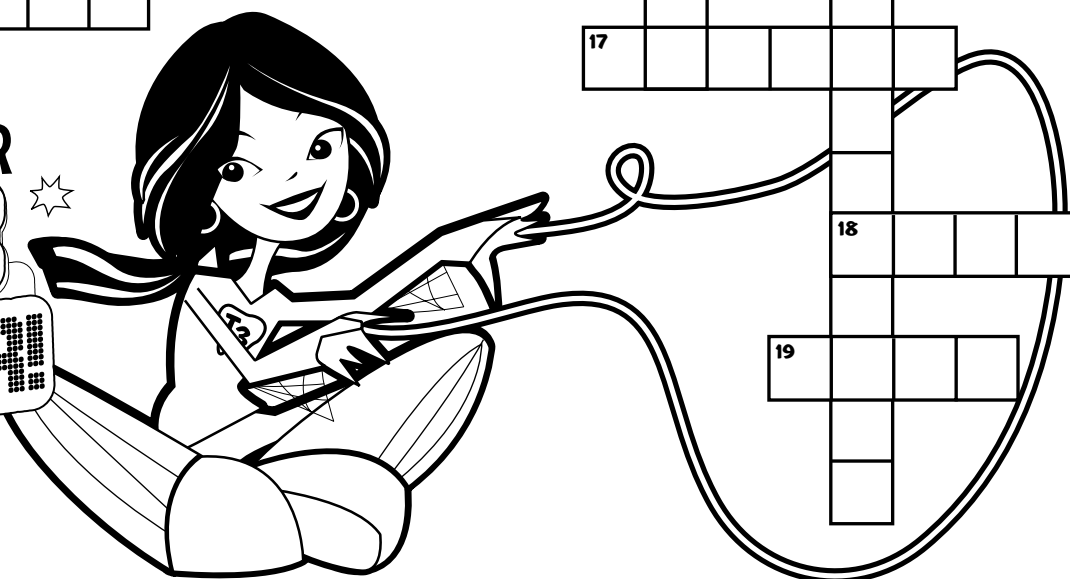
Invert sugar

Malt syrup

# Crossword Puzzle



**TURN UP YOUR  
SMILE  
POWER!**



## Across

5. Have regular \_\_\_\_\_ checkups
6. Use only a \_\_\_\_-sized amount of toothpaste when you brush
8. Grin
9. He promotes healthy smiles with nutritious food and drinks
12. What your dentist applies to protect teeth from decay
13. Brush your teeth at least \_\_\_\_\_ a day
14. Be part of the Tough Tooth \_\_\_\_\_
16. Pictures of your teeth
17. If not removed, can lead to cavities
18. They hold your teeth in place
19. Your first teeth

## Down

1. Brushetta uses this to keep teeth clean
2. Limit between-meal \_\_\_\_\_
3. Clean between your teeth with dental \_\_\_\_\_
4. Broccoli and carrots are nutritious \_\_\_\_\_
5. The Tough Tooth Team fights tooth \_\_\_\_\_ 24/7!
7. Only eat sparingly to keep your smile healthy!
10. Drink this instead of soda pop!
11. The hard outer layer of a tooth
15. Wear this to protect your smile while playing sports

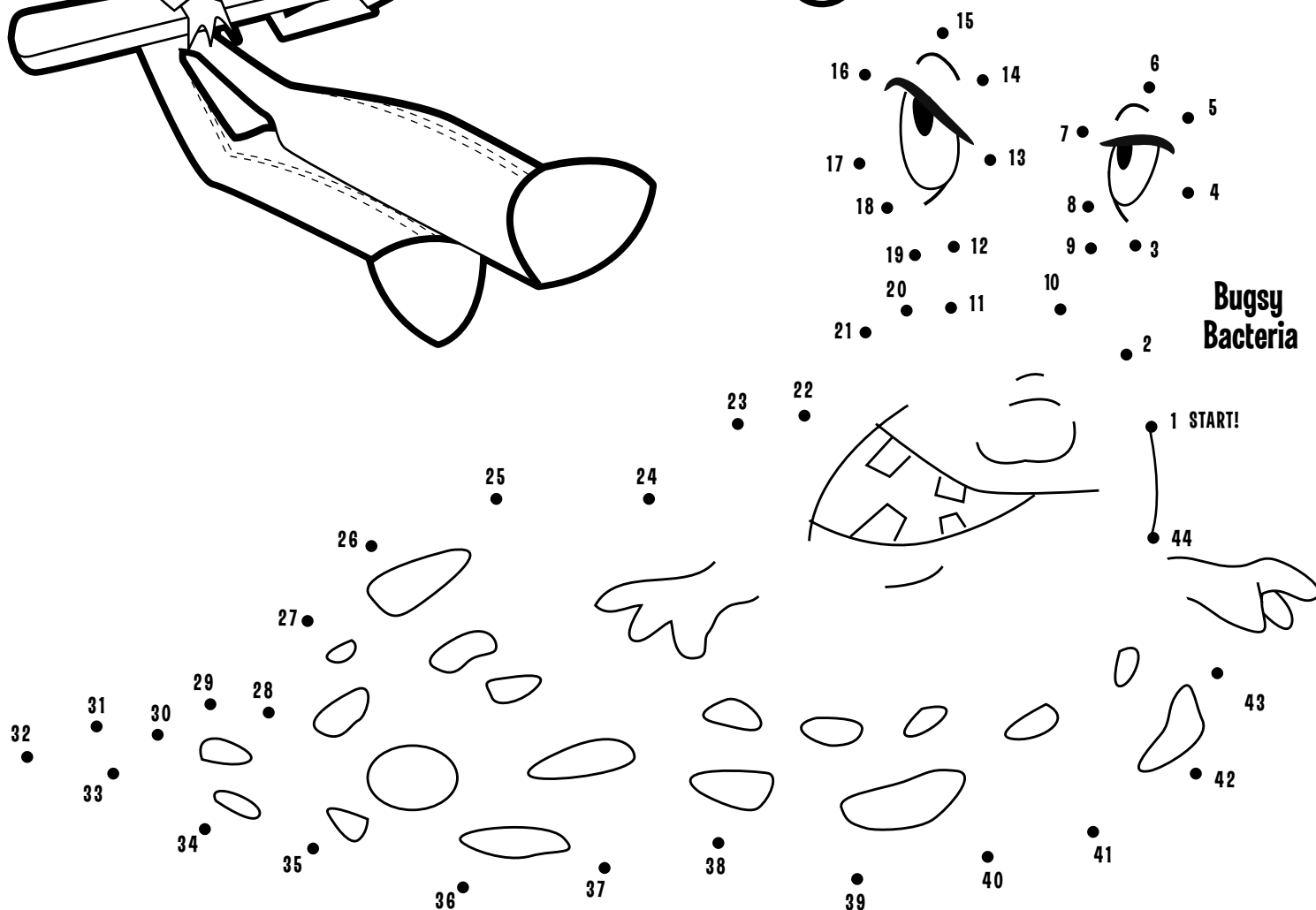
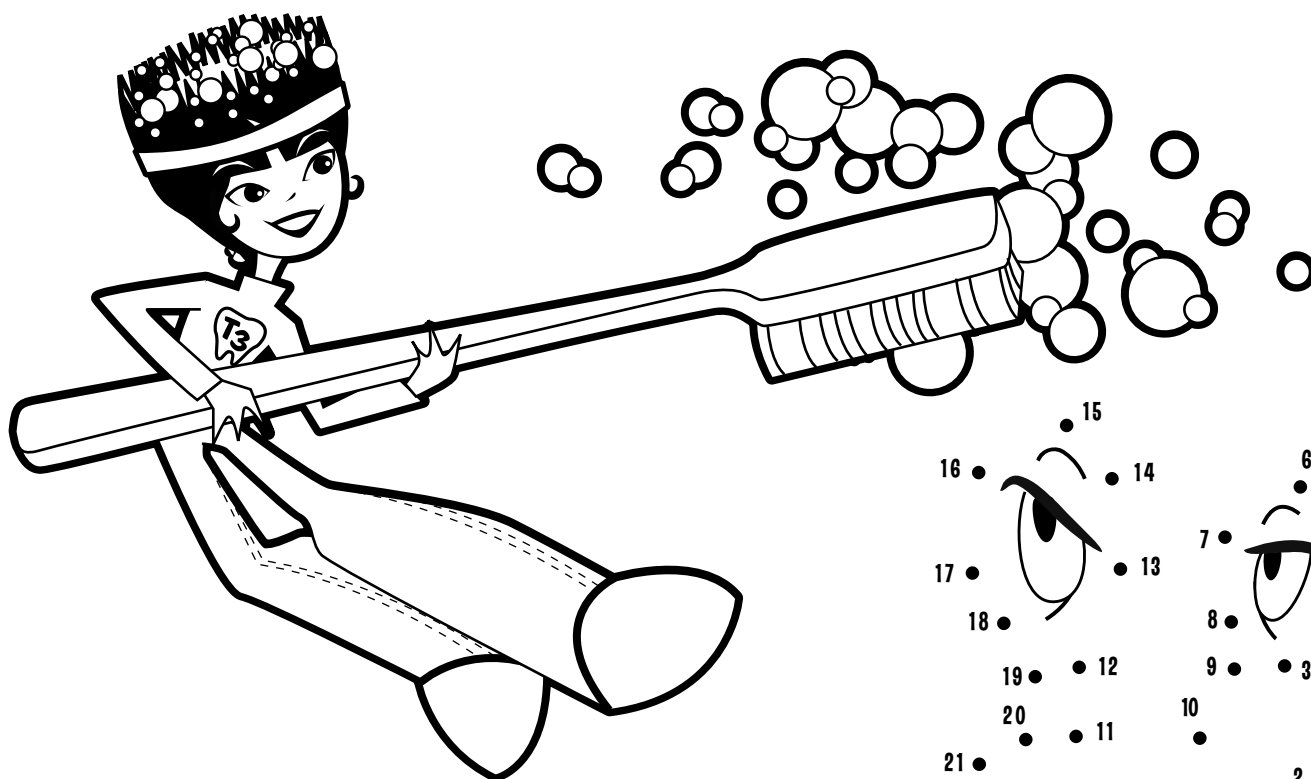
February is National Children's Dental Health Month

TURN UP YOUR

SMILE POWER!



Connect  
the Dots





**Third Grade Pre/Post Assessment**

Circle the happy tooth if your answer is YES. Circle the Sad tooth if your answer is NO.

1. There are six nutrients we should have to keep our bodies healthy?

**Happy (Feliz)****Sad (Triste)**

2. *S. mutans* is the name of a bacteria that can cause cavities in my teeth?

**Happy (Feliz)****Sad (Triste)**

3. It is ok to eat a food high in sugar sometimes as long as we brush our teeth after eating these foods?

**Happy (Feliz)****Sad (Triste)**

4. Sugar can be found in bread?

**Happy (Feliz)****Sad (Triste)**

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Thank you in advance,

Future Smiles

School name \_\_\_\_\_ Date \_\_\_\_\_

Teacher name \_\_\_\_\_ Grade \_\_\_\_\_ Number of students present \_\_\_\_\_

Questions	Pre-Test YES	Pre-Test NO	Post-Test YES	Post-Test NO
1. There are six nutrients we should have to keep our bodies healthy?				
2. S. mutans is the name of a bacteria that can cause cavities in my teeth?				
3. It is ok to eat a food high in sugar sometimes as long as we brush our teeth after eating these foods?				
4. Sugar can be found in bread?				

**Program Story**

Kelly Taylor

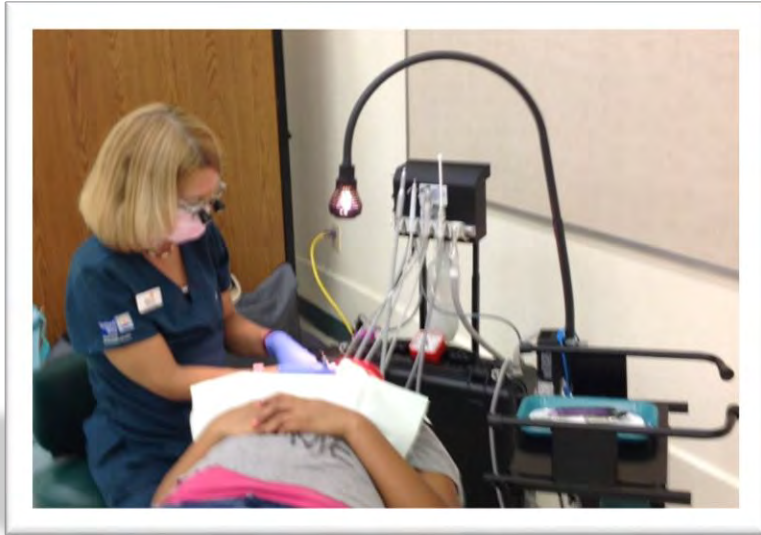
*Future Smiles Dental Hygienist*

One day, I brought a second grade student in for oral care and sealants at Martinez Elementary School's Mobile. I started oral health instructing with a question, "Tell me how many times a day do you brush your teeth?"

The little girl sat up straight in the chair, her face

beamed "Tuesday is my day," with a big

smile. She was so proud of herself. I responded with "excuse me?" The little girl repeated "Tuesday is my day." After more discussion, it was discovered that her family shared one toothbrush and each person got the toothbrush on a different day of the week. I sent home toothbrushes for all of the family with an explanation on how important it is to all have their own toothbrush.

**Fourth Grade Lesson Plan****A. Objective**

Students will be able to explain how tooth decay happens and what they can do to prevent it.

**B. Supplies needed**

An apple.

**C. Worksheets**

Tooth Decay and display the following Vocabulary: plaque, acid, dental sealant, enamel and dentin.

**D. Introductory Activity**

Teacher will ask students to describe plaque (sticky stuff on teeth) and acid (produced by sugar from foods eaten and bacteria in the mouth) and how both of them affect teeth.

**E. Mini Lesson**

Apple exercise:

- Say “your mouth is not a clean place!” Have students run their tongue along teeth. Ask them if they feel the fuzzy (like a sweater) feeling? That’s called plaque.
- When you don’t brush, plaque mixes with the food (especially with high sugar content) you eat and turns into acid. The acid causes dental cavities.
- Look at this apple! Compare the apple to a tooth. Skin on an apple is like the enamel (hard, glossy white covering) on a tooth. When an apple gets a hole in the skin, this is similar to a hole in your enamel. That hole is caused by acid. This is the start of a cavity.
- The acid will continue eating through the tooth, allowing bacteria (germs) to get into the teeth, until they reach the dentin (the soft part of your teeth), like the soft part of an apple.
- Eventually, the decay may reach the nerve if a dentist is not seen and the tooth is not fixed. If the tooth is not repaired (fixed), the tooth will start to die.

Display the following vocabulary words and explain the meaning of these words:

New Word	Definition
Acid	A compound produced by bacteria in the mouth when it feeds on carbohydrates (sugar) having the ability to cause caries/cavities (tooth decay).
Dental Sealant	A thin plastic coating that fills in the deep grooves on the chewing part of the tooth. They are easy to apply, painless and will help prevent decay from the acid formed by germs/bacteria.
Dentin	Under the enamel is a second layer of tooth that is a softer structure than enamel and makes up the majority of the tooth.
Enamel	The hard, glossy outer surface of our teeth. It is very strong and rich in calcium and phosphate.
Plaque	A sticky, slimy film made up of germs/bacteria that causes tooth decay. Too much plaque may result in cavities.

Display the Tooth Decay worksheet. Read the explanation and ask the students to organize the drawing in the correct order.

**F. Guided Practice**

Students will label the parts of the tooth in the Tooth Decay Worksheet.

Students will be able to explain to a partner how a cavity develops and what happens to the tooth.

**G. Independent Practice**

Students will write a letter to a tooth. Have students explain how a tooth can get a cavity (using the correct vocabulary) and explain what they will do in the future to keep their teeth healthy.

**H. Closing**

Pick several students to share their letters with the class.

**I. Assessment based on Objective**

Students will be able to explain how cavities develop in teeth, what happens to the tooth, and how to help prevent them.

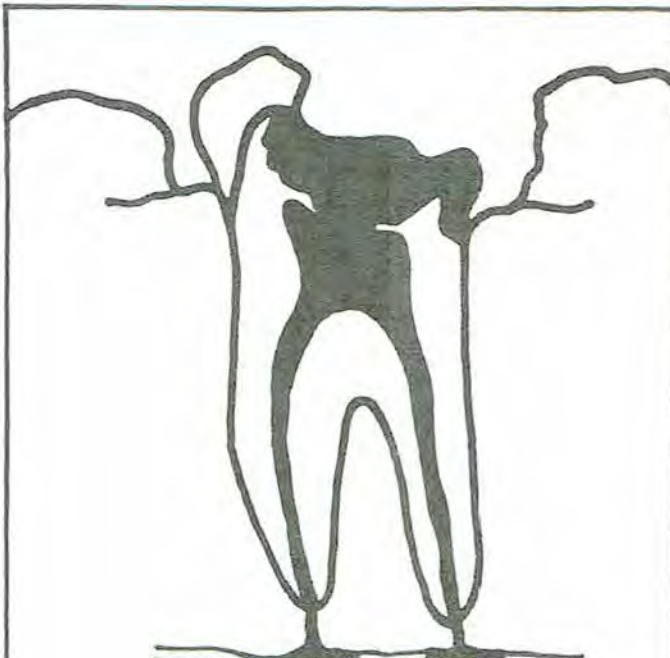

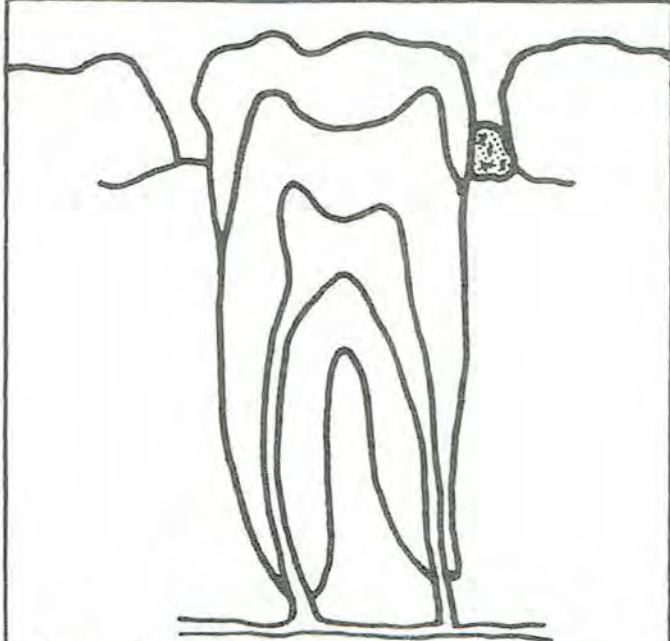

**J. Common Core Standards**

CCSS.ELA-Literacy.W.4.1.b

Provide reasons that are supported by facts and details.



# Tooth Decay

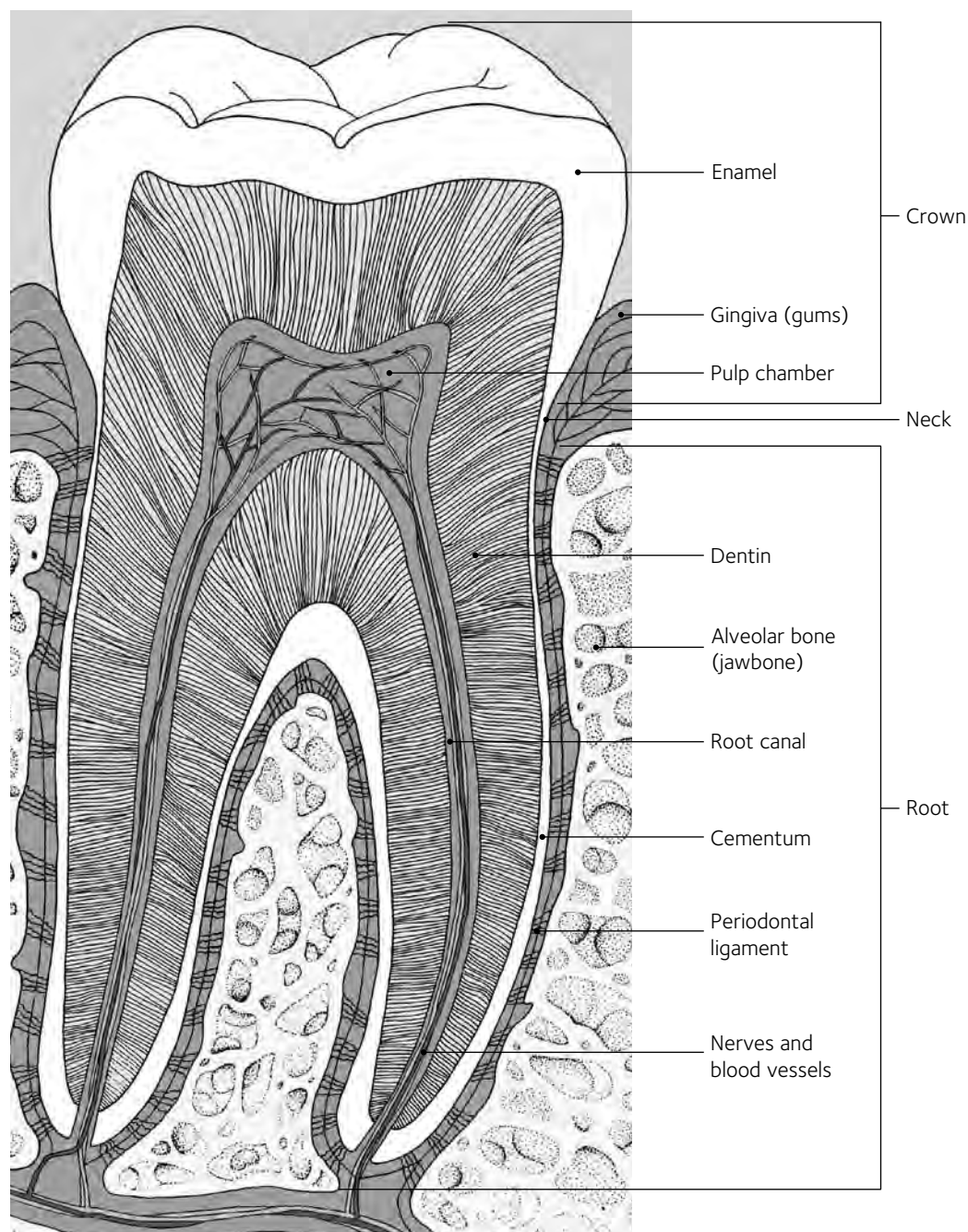
 <p>Now the decay is much, much worse, and the tooth may have to be removed. What can we learn from this?</p>	 <p>One tooth has a cavity. It is small. A dentist can fix this easily. What will happen if this tooth is not treated?</p>
 <p>A small piece of food has been left between two teeth. The sugar in the food will mix with the plaque to form an acid. What will happen if these teeth do not get brushed?</p>	 <p>The decay has spread to another tooth. Soon this cavity will become painful. It can still be saved. What should be done?</p>

This is not in the correct order.  
Cut the scenes apart and glue them in order  
on a sheet of construction paper.

# TURN UP YOUR SMILE POWER!

February is National Children's  
Dental Health Month

## Tooth Anatomy



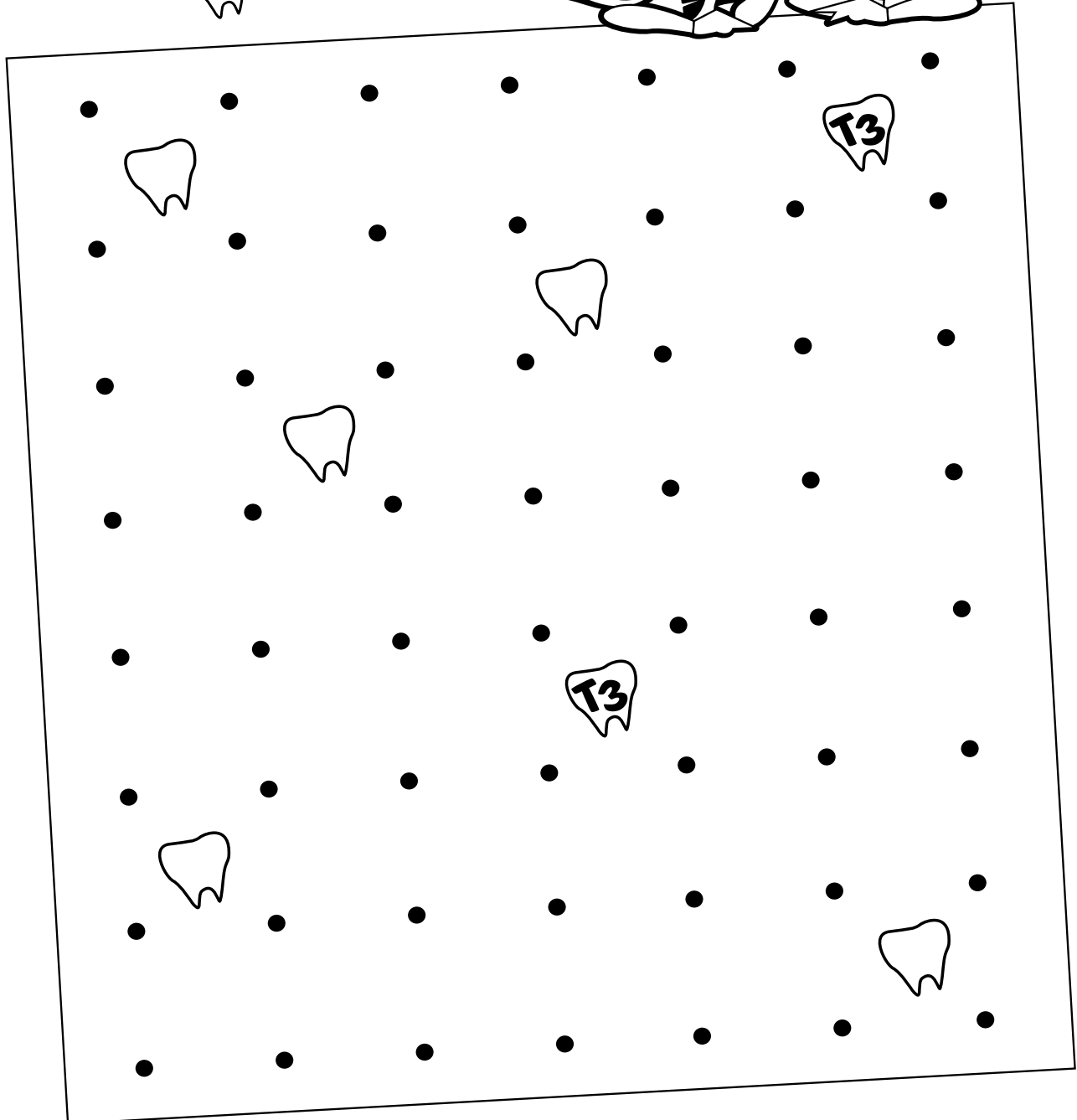
# February is National Children's Dental Health Month

## Connect 4

Take turns with a friend connecting the dots below.  
If you make a square, give yourself 1 point.

A square with a  is worth 2 points.

A square with  is worth 4 points.



February is National Children's Dental Health Month

# WORD SCRAMBLE

Unscramble the letters below to form dental health words

TCIAYV \_\_\_\_\_

IKLM \_\_\_\_\_

IGRNSA \_\_\_\_\_

SBEEEGTALV \_\_\_\_\_

USMG \_\_\_\_\_

GAUMHOTDRU \_\_\_\_\_

ISTEDTN \_\_\_\_\_

ATME \_\_\_\_\_

TAAESLN \_\_\_\_\_

EELNAM \_\_\_\_\_

ISERN \_\_\_\_\_

OTNEUG \_\_\_\_\_

TTOHO \_\_\_\_\_

HBTOTOUHS \_\_\_\_\_

ATOPOHSTET \_\_\_\_\_

LSIEM \_\_\_\_\_

RIFDELOU \_\_\_\_\_

SOLSF \_\_\_\_\_

TUFRI \_\_\_\_\_

LUEQAP \_\_\_\_\_



CAVITY, MILK, GRAINS, VEGETABLE, GUMS, MOUTHGUARD, DENTIST, MEAT, SEALANT, ENAMEL, RINSE, TONGUE TOOTH, TOOTHBRUSH, TOOTHPASTE, SMILE, FLUORIDE, FLOSS, FRUIT, PLAQUE



**Fourth Grade Pre/Post Assessment**

Circle the happy tooth if your answer is YES. Circle the Sad tooth if your answer is NO.

1. Enamel is the inside part of your teeth?



**Happy (Feliz)**



**Sad (Triste)**

2. Plaque is the sticky stuff on our teeth that causes cavities?



**Happy (Feliz)**



**Sad (Triste)**

3. Dental sealants protect our teeth from getting cavities?



**Happy (Feliz)**



**Sad (Triste)**

4. Cavities are caused by acid?



**Happy (Feliz)**



**Sad (Triste)**

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Thank you in advance,

Future Smiles

School name \_\_\_\_\_ Date \_\_\_\_\_

Teacher name \_\_\_\_\_ Grade \_\_\_\_\_ Number of students present \_\_\_\_\_

Questions	Pre-Test YES	Pre-Test NO	Post-Test YES	Post-Test NO
1. Enamel is the inside part of your teeth?				
2. Plaque is the sticky stuff on our teeth that causes cavities?				
3. Dental sealants protect our teeth from getting cavities?				
4. Cavities are caused by acid?				

**Program Story**

Cathy Carreiro, RDH

*Future Smiles Dental Hygienist*

Future Smiles moved into one of the mobile units (Peterson Elementary School) to provide preventative services and we got an amazing response! Over a hundred returned consent forms returned to us. I was finishing up at a different mobile school site and then moved my mobile equipment to Peterson to try and finish seeing the students with consent forms. I arrived just as school was letting out at Petersen. We at Future Smiles all wear the same green



scrubs so the children always remember us. As I was entering the school, a small girl grabbed her mother's arm and said, "that's the dental hygienist I saw!" She was waving, smiling and shouting "hello." Then her mother joined her and said "we love you, thank you!" I couldn't stop smiling because it wasn't me she saw for her treatment, it was another team member. She recognized how much we cared and she had a wonderful experience with a Future Smiles team member.

**Fifth Grade Lesson Plan****A. Objectives**

Students will be able to identify the different permanent teeth and at what age they appear.

Students will also learn about periodontal disease and how it can lead to poor systemic health.

**B. Worksheets**

Vocabulary display (incisor, cuspid, bicuspid, molar), When Permanent Teeth Appear and Stages of Periodontal Disease.

**C. Introductory Activity**

Ask students to share stories about a time they lost a baby tooth.

**D. Mini Lesson**

Display the following Vocabulary words and review the meaning of the words:

New Word	Definition
Bicuspid	Sharp pointed teeth used for breaking and tearing food.
Cuspid	The sharp pointed tooth used for breaking and tearing food.
Incisor	One of front teeth used for cutting.
Molars	Teeth used for grinding and chewing food.

Display the When Permanent Teeth Appear Worksheet and review where the different teeth are and at what approximate age they appear.

**Display the Stages of Periodontal Disease Worksheet.**

Write **Peri=Around Odonto=Tooth** on the board.

Ask students if they know what periodontal disease means? Explain how a tooth and a fence are similar. If the post of a fence gets wobbly then just like the post of a fence, if the area around a tooth disappears or gets sick, the tooth will fall out. Emphasize the importance for tissues around the teeth to remain solid and healthy.

**Three stages of Periodontal Disease.**

1. Gingivitis. ***Gingiva=gums and itis=inflammation.***
2. Inflammation of the gums. When plaque (sticky, slimy deposit that forms on teeth and traps bacteria) is not removed from teeth, it makes the gums red, swollen, sore and bleed easily.
3. Periodontitis. The irritated gums pull away from the teeth, forming pockets that fill with bacteria and pus and cause bad breath. As gums recede, or pull away from the tooth, the roots of the teeth are exposed. The connective tissues that fasten teeth to bone are destroyed. Teeth loosen due to periodontitis, periodontal disease, and eventually are lost. This is the final stage of disease. More than 70% of adult tooth loss is caused by periodontitis.



**E. Guided Practice**

Students will fold a paper in a hot dog shape. They will write on one side causes of periodontal disease. The other side have students write ways of preventing periodontal disease. Students can draw pictures and write sentences to reinforce concepts.

**Periodontal Disease**

1. Plaque build-up on teeth
2. Worn out fillings irritating gingiva.
3. Food wedged in between teeth
4. Lack of nutritious diet
5. Damage to tissue of gums

**How to Prevent Periodontal Disease**

Remove plaque by flossing and brushing.

Visit a dental hygienist and a dentist.

Eat nutritious foods, such as vegetables and fruits.

Don't bite fingernails and try not to grind teeth.

**F. Independent Practice**

Ask the students to generate a list of potential health problems of not having teeth, losing teeth or having difficulty chewing. Ask the students to generate a list of careers and how the mouth is important to each career. Have students write a sentence exemplifying what periodontal disease is and how it will affect this career - physical appearance, speech problems, and social problems.

**G. Closing**

Students will get an opportunity to share their paragraphs with a partner.

**H. Assessment based on Objectives**

Students will be able to explain the different types of teeth, their function and average age when they appear.

Students will be able to explain the stages of periodontal disease and how to prevent it.

Students will be able to explain some of the health and career related problems of not having or losing teeth.

**I. Common Core Standards**CCSS.ELA-Literacy.W.5.1.b

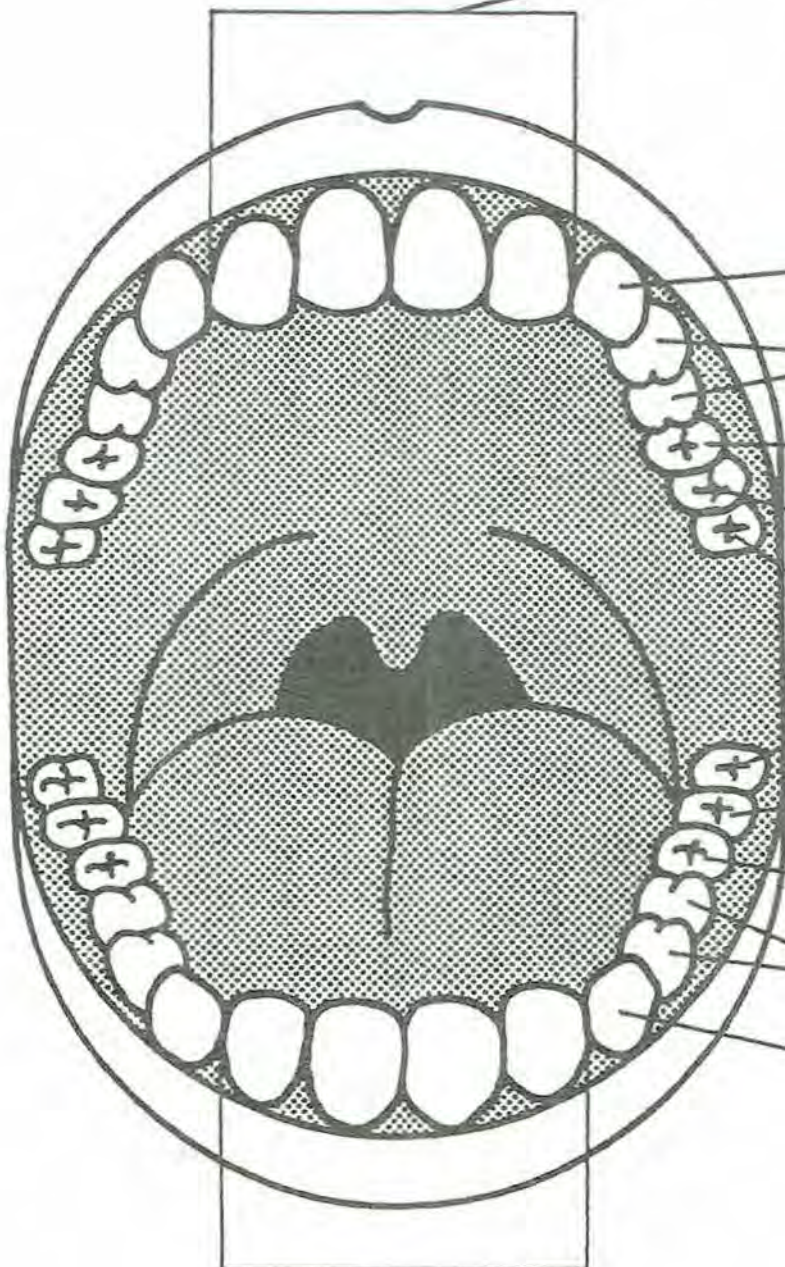
Provide logically ordered reasons that are supported by facts and details.

# When Permanent Teeth Appear

AGE

6-9

Incisors



Cuspid

11-12

Bicuspid

10-12

First Molar

6-7

Second Molar

12-13

Third Molar

17-21

Third Molar

17-21

Second Molar

11-13

First Molar

6-7

Bicuspid

10-12

Cuspid

9-10

Incisors

6-8



# Stages of Periodontal Disease



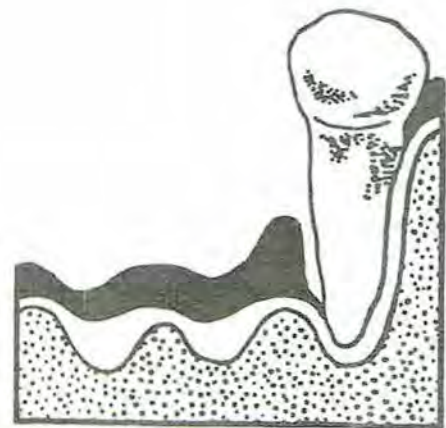
Stage 1: Healthy Mouth



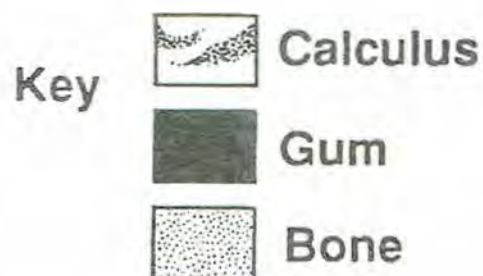
Stage 2: Gingivitis



Stage 3: Periodontitis



Stage 4: Tooth Loss



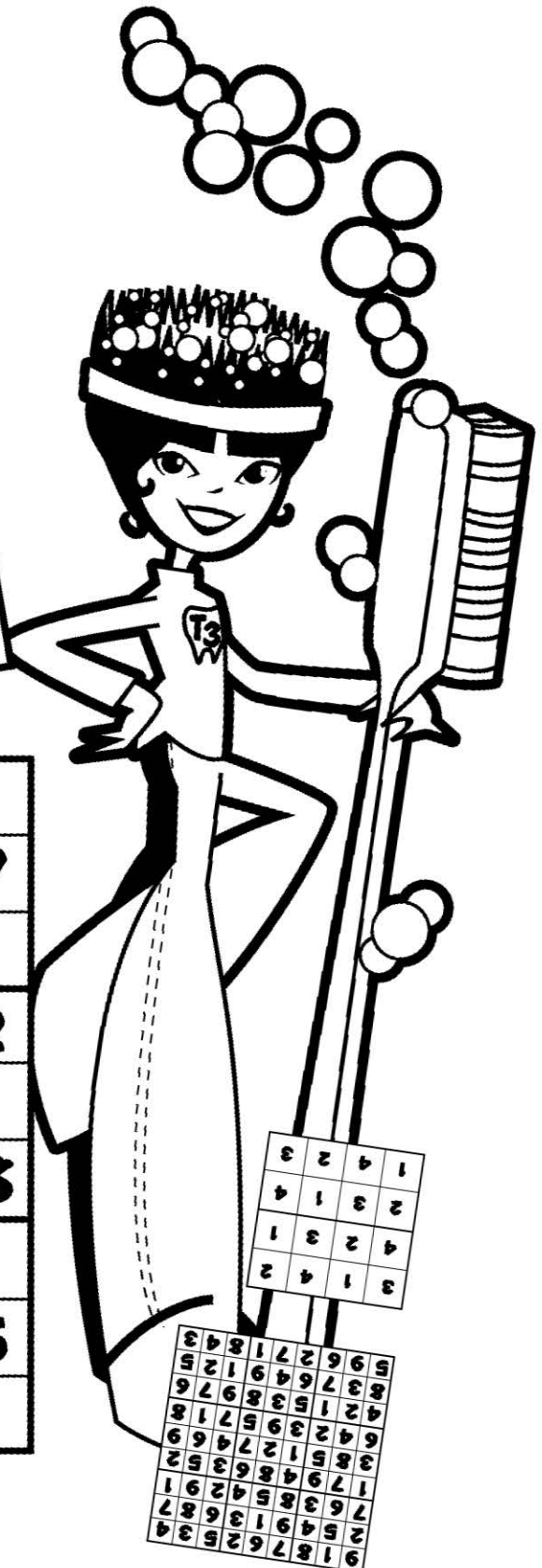
February is National Children's Dental Health Month

# Sudoku

Fill in the empty squares so that each of the 4 numbers repeats only once in each row, column and box

		1	4	
4	2	3		
	3	1	4	
	4	2		

	1			6			3	
2	5			1			8	7
		3	8		4	2		
1	7		4		6		5	2
	8		1	2	7		6	
6	4		3		5		1	8
		1	5		8	9		
8	3			4			2	5
	9	6		7		8	4	







# Secret Message Code

Add up the numbers represented by each set of symbols and replace it with the corresponding letter.

For example, the last letter in the message is Y.

The each spirals counts for 10 and the star counts for 5, so  $10+10+5=25$  and the 25th letter of the alphabet is Y.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

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**Fifth Grade Pre/Post Assessment**

Circle the happy tooth if your answer is YES. Circle the Sad tooth if your answer is NO.

1. Periodontal disease can lead to loss of teeth?

**Happy (Feliz)****Sad (Triste)**

1. To prevent loss of teeth we should brush twice a day and floss?

**Happy (Feliz)****Sad (Triste)**

2. Gingivitis is the inflammation of the face?

**Happy (Feliz)****Sad (Triste)**

3. Cuspid is one of the sharp pointed teeth used for breaking and tearing food?

**Happy (Feliz)****Sad (Triste)**

4. Is it true that less than 20% of adults lose their teeth due to Periodontitis?

**Happy (Feliz)****Sad (Triste)**

Dear Educator:

Thank you for your help with this Pre/Post Test. We appreciate your interest and commitment to the better health of your students. It is important to Future Smiles to receive accurate data so that we may continue to receive funding to provide free services to children. 😊 Please ask a staff member from Future Smiles to answer any questions.

Thank you in advance,

Future Smiles

School name \_\_\_\_\_ Date \_\_\_\_\_

Teacher name \_\_\_\_\_ Grade \_\_\_\_\_ Number of students present \_\_\_\_\_

Questions	Pre-Test YES	Pre-Test NO	Post-Test YES	Post-Test NO
1. Periodontal disease can lead to loss of teeth?				
2. To prevent loss of teeth we should brush twice a day and floss?				
3. Cuspid is one of the sharp pointed teeth used for breaking and tearing food?				
4. Is it true that less than 20% of adults lose their teeth due to Periodontitis?				

# Seal Out TOOTH DECAY

A BOOKLET FOR PARENTS



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
National Institutes of Health  
National Institute of Dental and Craniofacial Research





## What are dental sealants?

Sealants are thin, plastic coatings painted on the chewing surfaces of the back teeth.

Sealants are put on in dentists' offices, clinics, and sometimes in schools. Getting sealants put on is simple and painless. Sealants are painted on as a liquid and quickly harden to form a shield over the tooth.



## How are sealants put on?



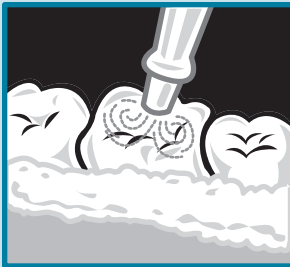
**1** The tooth is cleaned.



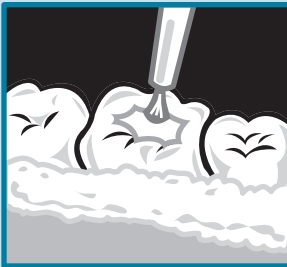
**2** The tooth is dried, and cotton is put around the tooth so it stays dry.



**3** A solution is put on the tooth that makes the surface a little rough. (It is easier for the sealant to stick to a slightly rough surface.)



**4** The tooth is rinsed and dried. Then new cotton is put around the tooth so it stays dry.



**5** The sealant is applied in liquid form and hardens in a few seconds.



**6** The sealant is in place.

## Why get sealants?

The most important reason for getting sealants is to avoid tooth decay.

Fluoride in toothpaste and in drinking water protects the smooth surfaces of teeth but back teeth need extra protection. Sealants cover the chewing surfaces of the back teeth and keep out germs and food.

Having sealants put on teeth before they decay will also save time and money in the long run by avoiding fillings, crowns, or caps used to fix decayed teeth.

## What causes tooth decay?

Germs in the mouth use the sugar in food to make acids. Over time, the acids can make a cavity in the tooth.

Of course a healthy tooth is the best tooth. So it is important to prevent decay. That's why sealants are so important.

## Why do back teeth decay so easily?

The chewing surfaces of back teeth are rough and uneven because they have small pits and grooves. Food and germs can get stuck in the pits and grooves and stay there a long time because toothbrush bristles cannot brush them away.

## Who should get sealants?

Children should get sealants on their permanent molars *as soon as the teeth come in* — before decay attacks the teeth.

The first permanent molars — called “6 year molars” — come in between the ages of 5 and 7.

The second permanent molars — “12 year molars” — come in when a child is between 11 and 14 years old.

Other teeth with pits and grooves also might need to be sealed.

Teenagers and young adults who are prone to decay may also need sealants.

## Should sealants be put on baby teeth?

Your dentist might think it is a good idea, especially if your child’s baby teeth have deep pits and grooves.

Baby teeth save space for permanent teeth. It is important to keep baby teeth healthy so they don’t fall out early.

## Does insurance pay for sealants?

Some health insurance programs pay for sealants. Check with your state Medicaid program or your insurance company for details.



## How long do sealants last?

Sealants can last up to 10 years. But they need to be checked at regular dental check-ups to make sure they are not chipped or worn away. The dentist or dental hygienist can repair sealants by adding more sealant material.

## What if a small cavity is accidentally covered by a sealant?

The decay will not spread, because it is sealed off from its food and germ supply.



## Are sealants new?

No, sealants have been around since the 1960s. Studies by the National Institute of Dental and Craniofacial Research and others led to the development of dental sealants and showed that they are safe and effective.

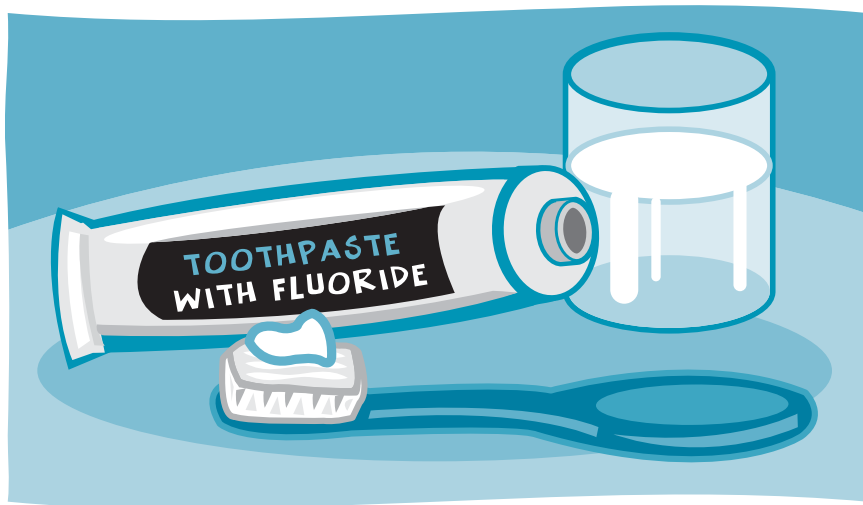
But many people still do not know about sealants. In fact, fewer than 25 percent of children in the United States have sealants on their teeth.

## Besides sealants, are there other ways to prevent tooth decay?

Yes. Using fluoride toothpaste and drinking fluoridated water can help protect teeth from decay.

Water is fluoridated in about two-thirds of cities and towns in the United States. If your water is not fluoridated or if your children's teeth need more fluoride to stay healthy, a dentist can prescribe it in the form of a gel, mouthrinse, or tablet.

Fluoride is the best defense against tooth decay!



## Fluoride...

- makes teeth more resistant to decay
- repairs tiny areas of decay before they become big cavities
- makes germs in the mouth less able to cause decay

Fluoride helps the smooth surfaces of the teeth the most. It is less effective on the chewing surfaces of the back teeth. Regular brushing — with fluoride toothpaste — also helps prevent tooth decay.

*Sealants and fluoride together can prevent almost all tooth decay.*

## How can I get dental sealants for my children?

Talk to your dentist, state or local dental society, or health department. Sometimes sealants are put on at school. Check with your school about whether it has a sealant program.







*For additional copies of this booklet contact:*



**NATIONAL INSTITUTE OF DENTAL  
AND CRANIOFACIAL RESEARCH**

**National Oral Health Information Clearinghouse**

**1 NOHC Way**

**Bethesda, MD 20892-3500**

**301-402-7364**

**[www.nidcr.nih.gov](http://www.nidcr.nih.gov)**

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Make as many photocopies as you need.*

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# **Future Smiles Program Evaluation Teacher Interview Summary September, 2015**

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This evaluation was funded by a grant from the DentaQuest Foundation to Future Smiles, Inc. The evaluation activities reported here were conducted by ICF International under contract with Future Smiles, Inc. ICF International's IRB provided approval of the study led by Catherine Lesesne, PhD, MPH.

## Executive Summary

Future Smiles, Inc., is a public health program designed to provide preventive oral health care to children in the Clark County School District (CCSD). Future Smiles and their partners developed a program to provide oral health care to students who are most at risk for oral diseases. ICF International, under contract with Future Smiles, carried out a sub-study of the evaluation to address the following questions: What health and educational benefits do teachers attribute to student participation in Future Smiles? What are the perceptions and experiences of the program as reported by teachers affiliated with the Future Smiles? Interviews of teachers were used to gather feedback on the perceived value of the school-based dental hygiene program provided by Future Smiles at participating schools.

*The interviews covered the following domains:*

- *Familiarity with Future Smiles*
- *Perceived Benefits to Students' Oral Health*
- *Perceived Benefits to Students' Education (about oral health)*
- *Perceived Benefits to Families of Participants*
- *Factors Supporting Future Smiles in the School*
- *Factors Challenging Future Smiles in the School*
- *Recommendations for Improving Future Smiles Services or Delivery in Schools*

Teachers were drawn at random from the list of registrants for Future Smiles “Brush at Lunch” program introduction sessions. Each teacher received an email from the evaluator describing the purpose, duration, and content of the interviews. Staff who indicated interest in participating were asked for potential interview times that worked with their schedules. ICF interviewed 14 teachers from across the three schools.

## Findings:

### **Familiarity and Engagement with Future Smiles**

All of the interviewees were familiar with the Future Smiles program to some degree. Teachers from all 3 schools described 2 aspects of the Future Smiles program with which they were familiar: services administered by the dental hygienist and the Brush at Lunch program. Teachers' direct engagement with the program primarily consisted of offering the Brush at Lunch program in their classrooms. Reported participation levels in the Brush at Lunch program varied. A few teachers had 100% participation, while others struggled to get parents to return the signed consent form and had participation closer to 50%.

### **Perceived Benefits to Students' Oral Health**

Many teachers were able to identify at least one instance of a student in their school having had an oral health need (such as a possible cavity) identified by Future Smiles. Teachers recalled instances such as a student having rotten teeth identified and subsequently pulled, after which they were better able to



attend and function in class. A small number of other teachers mentioned that they do not have conferences with the dental hygienist so they are unaware of what has been done for the students. A related benefit that was cited was that students are able to have early, trauma-free encounters with a dental professional.

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*I used to think “why is there a dental room in this school?” And then I saw students coming in at 3 years old with no teeth. We look at the whole child, and the entire school has benefited. We are grateful.*

---

### **Perceived Benefits to Students’ Education (about oral health)**

All of the teachers confirmed that students had learned a great deal about oral health care as a result of participating in the Brush at Lunch program, which was described as an applied learning experience. Students were described as having learned about:

- Proper brushing technique, including how long to brush for, how much toothpaste to use. A few teachers reported that students were overheard correcting one another’s brushing technique.
- The importance of brushing, particularly after meals.
- Healthy and unhealthy foods (the *Sugar Bug Doug* book was identified by several teachers as particularly helpful in teaching this lesson).
- Oral health-related vocabulary: enamel, cavity, tartar, parts of the mouth.

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*“Students always come back from the hygienist happy and smiling, carrying their stickers.”*

*“Students get really excited about the Brush at Lunch program; they ask to brush even before lunch!”*

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Many teachers also cited overall academic benefits to improved oral health, including the ability to concentrate in the absence of pain, and be present in school rather than missing school due to pain or requiring dental or medical intervention for oral health issues. Although most of the teachers acknowledged this link, few teachers cited specific examples of improvement in attendance among students who had oral health issues identified and addressed through Future Smiles. One teacher mentioned students missing school in order to have oral health issues addressed (2 days off after tooth extraction), but that there were no further absences related to oral health after that.

### **Perceived Benefits to Families of Participants**

In discussing the program’s benefits to participants’ families, many teachers drew attention to the low socioeconomic context of their schools’ population, emphasizing that competing needs and resource-limitations restrict families’ ability to ensure preventive and restorative oral health care. Teachers cited the preventive services offered through Future Smiles as particularly beneficial for families without access to dental care or who lack the means (or time) to identify appropriate dental care; children receive services or referrals if needed that they would not have received otherwise.

Families of students with special needs were cited as particularly benefitting from their children being able to be seen at school, under the supervision of trained school staff, because parents might not have

thought of taking them to a dentist, or are overwhelmed at the prospect of managing their behavior in the context of a dentist's office.

Helping to avoid the need for expensive dental treatments was also cited as a potential benefit for participants' families. In addition, a few teachers also cited the supplies provided to each student as a benefit to their families; each child received a new toothbrush, along with toothpaste and dental floss, which the family might not have been able to or had a chance to provide.

### **Acceptability to Staff**

Overall satisfaction with the Future Smiles program was universal across the 3 schools. The majority of interviewees indicated they are very satisfied (78%) with the program, and the remainder indicated they are somewhat satisfied with the program (22%). Notably, participants who expressed a lower degree of satisfaction with the program offered recommendations for program improvement in conjunction with their response, and many noted that if the recommended strategies were implemented their satisfaction would increase.

### **Factors Challenging Future Smiles Program in the School**

#### ***Enrollment and parental participation***

Many teachers described difficulties associated with the Future Smiles enrollment process, particularly noting that parents receive a large volume of paperwork at the beginning of the school year and the consent form may get lost among the other papers. Some teachers who were familiar with the preventive services offered by the dental hygienist expressed concern about low levels of parental participation and low levels of parental literacy.

#### ***Physical space***

The number and location of sinks for students to use to brush their teeth for the Brush at Lunch program was cited as an issue, particularly for teachers of young children who cannot brush their teeth unsupervised. A few teachers said they do not have sinks in their rooms.

#### ***Storing and distributing Brush at Lunch supplies***

Several teachers described difficulties storing the Brush at Lunch tools in a hygienic manner. Teachers were keen to keep students' toothbrushes separate to avoid spreading germs; however, teachers that used the baggies the supplies came in to store the toothbrushes found that the toothbrushes never dried completely even if the bags were left open.

### **Highlighted Recommendations**

- Create Stronger Relationships with Teachers, Staff, and Parents
- Raise Awareness of the Program with Stakeholders
- Identify Mechanisms for Following Preventive Service Outcomes
- Brush at Lunch Timing, Integration into Teaching Day, Supplies, and Relationships
- Identify New Strategies to Increase Enrollment and Facilitate Parental Consent Receipt

## Introduction

Future Smiles, Inc., is a public health program designed to provide preventive oral health care to children in the Clark County School District (CCSD). Future Smiles and their partners developed a program to provide oral health care to students who are most at risk for oral diseases. The Future Smiles Pilot Program Implementation and Evaluation of Impact on Student Performance evaluated the impact of oral health services provided by Future Smiles at three CCSD high-risk elementary schools (ES): Cunningham ES, Hollingsworth ES and Martinez ES. These schools were targeted for on-site health services due to the high Free and Reduced Lunch population (Cunningham=77.1%, Hollingsworth=92.48%, and Martinez=100%), the high percentage of families that lack health insurance (Cunningham=64.3%, Hollingsworth=48.2%, and Martinez ES=37.2%) and documented untreated tooth decay in the student population (Cunningham=41.9%, Hollingsworth=38.6%).

ICF International carried out a sub-study of the evaluation to address the following questions: What health and educational benefits do teachers attribute to student participation in Future Smiles? What are the perceptions and experiences of the program as reported by teachers affiliated with the Future Smiles program? Interviews were used to gather feedback on the perceived value of the school-based dental hygiene program provided by Future Smiles at participating schools, and covered the following domains:

- Familiarity with Future Smiles
- Perceived Benefits to Students' Oral Health
- Perceived Benefits to Students' Education (about oral health)
- Perceived Benefits to Families of Participants
- Factors Supporting Future Smiles in the School
- Factors Challenging Future Smiles in the School
- Recommendations for Improving Future Smiles Services or Delivery in Schools

Below we provide a description of the study methods, results (organized by interview domain accompanied by illustrative, paraphrased quotes), and finally a set of recommendations made directly by the interviewees and derived from their input by the evaluator.

## Methods

ICF conducted individual interviews with teachers in the three elementary schools. Teachers were drawn at random from the list of registrants for Future Smiles "Brush at Lunch" program introduction sessions. Each teacher received an email from the evaluator describing the purpose, duration, and content of the interviews. Staff who indicated interest in participating were asked for potential interview times that worked with their schedules. Teachers who did not respond received up to 2 follow-up emails.

Interviews were conducted by ICF staff; Future Smiles dental hygienists did not conduct interviews to ensure objectivity and honesty from respondents. Interviews were conducted by phone and lasted between 30 and 45 minutes. Prior to conducting the interviews, we obtained informed verbal consent. Respondents were advised of the voluntary nature of the interview, and steps taken to protect the confidentiality of their responses (i.e., not linking responses with, or reporting, participants' names). Each participant was offered a \$25 gift card in appreciation of their time.

Each interview included a brief set of closed-ended survey questions to help contextualize the findings quantitatively. We aimed for 5 teacher interviews for each school, and achieved a total of 14 teacher interviews. The table below includes a breakdown of the number of teachers interviewed at each school, along with a summary of their characteristics.

**Table 1. Interviewee Characteristics**

School	Cunningham Elementary	Hollingsworth Elementary	Martinez Elementary	Total
Number of teachers	4	5	5	14
Grades represented	<ul style="list-style-type: none"> <li>• Pre-kindergarten</li> <li>• 2<sup>nd</sup> grade</li> <li>• 3<sup>rd</sup> grade</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-kindergarten</li> <li>• Kindergarten</li> <li>• 1st grade</li> <li>• 2nd grade</li> </ul>	<ul style="list-style-type: none"> <li>• Kindergarten</li> <li>• 5th grade</li> </ul>	
Years in current role	1 year or less: 25% 2-5 years: 50% 6-10 years: 0% 11 or more years: 25%	1 year or less: 0% 2-5 years: 20% 6-10 years: 60% 11 or more years: 20%	1 year or less: 40% 2-5 years: 0% 6-10 years: 60% 11 or more years: 0%	

## Results

### Familiarity with Future Smiles

All of the interviewees were familiar with the Future Smiles program to some degree. Teachers from all 3 schools described 2 aspects of the Future Smiles program with which they were familiar: services administered by the dental hygienist and the Brush at Lunch program. A few teachers were familiar only with the Brush at Lunch program, including a couple who reported having heard of the Future Smiles program for the first time at the Brush at Lunch program introductory session. Knowledge of the Brush at Lunch program is described in the section related to direct engagement.

### Knowledge of Program Activities

Teachers described the process by which students receive preventive oral health care through Future Smiles: a hygienist comes to the classroom during class time (in some cases during “specials” during which students are being taught by another teacher) and pulls enrolled students who need cleanings and services. Students return from the hygienist with a packet containing a toothbrush, toothpaste, dental floss, and a sticker. A few teachers cited fluoride treatments as a specific service offered by the dental hygienist, and two teachers mentioned sealants. Several teachers mentioned that the dental hygienist referred students out for further treatment, and a few teachers added that the dental hygienist actively

worked to help parents to identify low- or no-cost options for treatment, and sometimes arranged appointments. One teacher expressed uncertainty about whether the dental hygienist was able to fill cavities or not.

Teachers at Hollingsworth ES, in particular, reported being well acquainted with the program's point of contact (the dental hygienist), who was held in very high regard by the teachers. One Hollingsworth teacher described one way the hygienist engages teachers:

*The hygienist is very hands-on, she wants to provide services students need. She asks me how I am, and if anyone needs to be checked, or any new issues have arisen.*

### **Purpose of Future Smiles**

Teachers provided a range of descriptions purpose of Future Smiles:

- *Early intervention in dental care for all students*
- *Educating children about brushing and so they care for their teeth long term*
- *Increasing children's education by taking care of dental problems*
- *To ensure children receive preventive dental measures*
- *To enable children living in poverty to get treatment for their teeth they might not otherwise get*
- *Educating children on the importance of dental care, and provide dental care*
- *Preventing more health problems down the road, such as heart disease*

### **Enrollment Eligibility and Process**

Most teachers described the Future Smiles program as available to all students, and cited their school's status as a Title I school as the reason for universal eligibility. A small number of teachers expressed uncertainty about whether children who are covered by dental insurance are eligible for services through Future Smiles, while only one participant asserted that students who are covered by insurance can access the services.

When asked about the enrollment process, almost all teachers indicated that enrollment paperwork for participation in the dental services component of the Future Smiles program was sent home to all parents at the beginning of the school year. A small number of teachers had been hired after the start of the school year, and were unfamiliar with the enrollment process. A couple of teachers noted that enrollment forms are also available from the dental hygienist upon request, in the event that a teacher notices a student has an oral health issue that should be addressed or discusses oral health concerns with a parent (e.g., loss of insurance coverage, a student reporting toothache). One teacher thought that the school nurse could recommend that a student see the hygienist, but was not certain.

For the Brush at Lunch program, Teachers described having sent a consent form home before beginning the program, and students whose parents returned a signed consent form were eligible to participate. Many teachers indicated they also accepted completed consent forms after the program had begun. The latter scenario was often cited as taking place when a non-participating student saw the other students participating in the program and became jealous, and was told by the teacher returning the signed consent form would enable them to participate.



## Direct Project Engagement

Teachers' direct engagement with the program primarily consisted of offering the Brush at Lunch program in their classrooms. Teachers who offered the program in their classrooms reported having learned about the program at a session during which free lunch was provided. That lunch was provided, and that this helped promote attendance, was mentioned by many teachers. To carry out the Brush at Lunch program, teachers received a bag for each student containing a toothbrush, toothpaste, a toothbrush cap, and cups. Teachers received stickers and a chart for students to apply the stickers to after each brushing.

Reported participation levels in the Brush at Lunch program varied. A few teachers had 100% participation, while others struggled to get parents to return the signed consent form and had participation closer to 50%. These teachers often reported that the students who could not participate were jealous, and teachers sometimes reiterated that they could participate if they brought back the signed consent form.

Aside from the Brush at Lunch program, a small number of teachers, reported receiving presentations and oral-health related educational materials from the dental hygienist on topics such as brushing correctly and eating the right foods, outside of the Brush at Lunch program. One teacher said the hygienist visited her classroom on career day to explain the services that are offered in the school. These teachers described the presentations as effective, engaging, and age appropriate.

## Perceived Benefits to Students' Oral Health

### Preventive Services

Many teachers were able to identify at least one instance of a student in their school having had an oral health need (such as a possible cavity) identified by Future Smiles. Teachers recalled instances such as a student having rotten teeth identified and subsequently pulled, after which they were better able to attend and function in class. A couple of teachers described dentists coming on site to provide services, including a portable classroom having been used to fill cavities on site<sup>1</sup> (respondents presumed this was organized by Future Smiles). One teacher described how siblings with rotten teeth whose parents were afraid to take them to the dentist because they had special needs were helped to have the teeth extracted free of charge. One teacher described the importance of Future Smiles in the context of preschool.

*I used to think "why is there a dental room in this school?" And then I saw students coming in at 3 years old with no teeth. We look at the whole child, and the entire school has benefited. We are grateful.*

Notably, because students were sometimes pulled for preventive services during "specials," some teachers were unaware of which students were receiving services, or whether an issue had been identified. A small number of other teachers mentioned that they do not have conferences with the dental hygienist so they are unaware of what has been done for the students.

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<sup>1</sup> Note: Future Smiles does not provide restorative dental services such as fill of cavities and does not provide a dentist—Future Smiles uses dental hygienists exclusively. These respondents likely misunderstood what was provided by the program.

A related benefit that was cited was that students are able to have early, trauma-free encounters with a dental professional.

### **Brush at Lunch**

Teachers overwhelmingly indicated that participating students enjoyed brushing their teeth, and were establishing good oral health practices as a result of their participation in the Brush at Lunch program. Several teachers noted that for some students the program helped ensure students had the tools they needed, and were brushing their teeth at least once per day, or twice if they were only brushing at night previously. A few teachers reported that students' breath smelled better, their gums bled less, or their teeth appeared less yellow after Brush at Lunch began. One teacher cited a decrease in the number of students requesting to go to the nurse because of toothache, which had occurred before Brush at Lunch began. One teacher in particular, who teaches students with special needs, noted that the students' parents are often not brushing their teeth at home because it is too difficult.

### **Perceived Benefits to Students' Education (about oral health)**

All of the teachers confirmed that students had learned a great deal about oral health care as a result of participating in the Brush at Lunch program, which was described as an applied learning experience. Students were described as having learned about:

- Proper brushing technique, including how long to brush for, how much toothpaste to use. A few teachers reported that students were overheard correcting one another's brushing technique.
- The importance of brushing, particularly after meals.
- Healthy and unhealthy foods (the *Sugar Bug Doug* book was identified by several teachers as particularly helpful in teaching this lesson).
- Oral health-related vocabulary: enamel, cavity, tartar, parts of the mouth.

One teacher cited improved science and health scores before and after implementation of the Brush at Lunch program. Another teacher emphasized that learning about oral health and the career of a dental hygienist has practical applications in the lives of the students, unlike other topics they may cover as part of the health and science or community helpers curriculum (a curriculum used at the school where students learn about helping professions such as police officers, firemen, etc.).

Many teachers also cited overall academic benefits to improved oral health, including the ability to concentrate in the absence of pain, and be present in school rather than missing school due to pain or requiring dental or medical intervention for oral health issues. Although most of the teachers acknowledged this link, few teachers cited specific examples of improvement in attendance among students who had oral health issues identified and addressed through Future Smiles. One teacher mentioned students missing school in order to have oral health issues addressed (2 days off after tooth extraction), but that there were no further absences related to oral health after that.

## Perceived Benefits to Families of Participants

In discussing the program's benefits to participants' families, many teachers drew attention to the low socioeconomic context of their schools' population, emphasizing that competing needs and resource-limitations restrict families' ability to ensure preventive and restorative oral health care.

### Preventive Services

Teachers cited the preventive services offered through Future Smiles as particularly beneficial for families without access to dental care or who lack the means (or time) to identify appropriate dental care; children receive services or referrals if needed that they would not have received otherwise. One teacher even mentioned that the hygienist helped identify a low- or no-cost dentist for the parents, who lacked insurance. Another teacher noted that the hygienist was able to help a parent understand a dentist's treatment plan and reassure the parent that the child needed the recommended treatment. Direct engagement with parents included taking and sharing photos of the issues to help bridge a language barrier.

A couple of teachers stressed the shame family members feel related to their children's poor oral health, and the importance of the Future Smiles staff being welcoming and non-judgmental. Schools were identified as a safe and neutral space, particularly for people who may have immigration concerns, to seek services and advice. In these ways, the program helps to save families (many of whom lack reliable transportation) money and time, and alleviate the stress that families are under. One teacher described how Future Smiles plays a part in helping to stabilize a family.

*For the parents, anything the children are getting benefits them. This population is at-risk, low socioeconomic status, money is limited. This helps put food on the table. Other basic needs will be met if dental needs are taken care of.*

Families of students with special needs were cited as particularly benefitting from their children being able to be seen at school, under the supervision of trained school staff, because parents might not have thought of taking them to a dentist, or are overwhelmed at the prospect of managing their behavior in the context of a dentist's office.

### Brush at Lunch

Several teachers felt that Brush at Lunch participants grew more responsible about brushing their teeth and helped to educate and encourage their siblings. One teacher mentioned specifically encouraging students to share what they have learned with their families, and having overheard their conversations with older siblings about what they learned. Two teachers summarized the benefit to families as follows:

*Any time we can give the parent a break from having to hound their kids to brush their teeth, it makes it easier on them. The students are reminding themselves to brush, they are torturing their older siblings about brushing their teeth and doing it properly.*

*The students are activists at home, a helpful influence.*

*Now they want to brush their dog's teeth too!*

Helping to avoid the need for expensive dental treatments was also cited as a potential benefit for participants' families. In addition, a few teachers also cited the supplies provided to each student as a benefit to their families; each child received a new toothbrush, along with toothpaste and dental floss, which the family might not have been able to or had a chance to provide.

One teacher mentioned that their school has a high proportion of English language learners, and the education their students are receiving through the Brush at Lunch program will enable them to explain the importance good oral health practices, and potential health consequences of poor oral health, to their parents. As noted previously, the teacher of students with special needs felt the Brush at Lunch program may have been the students' introduction to brushing their teeth and believed it might continue at home after the toothbrush was sent home at the conclusion of the program.

## **Factors Supporting Future Smiles Program in the School**

### **Acceptability to Students**

A key factor supporting the implementation of the Future Smiles program in the 3 schools was the program's acceptability to students and teachers. Teachers spoke with a great degree of enthusiasm about students' receptivity to the Future Smiles program elements. All of the teachers reported that students get really excited about brushing their teeth. Many teachers reported that students ask to brush their teeth even before lunch, or will remind them that it's time to brush their teeth after lunch if the teacher forgets. Some illustrative statements included:

*Students always come back from the hygienist happy and smiling, carrying their stickers.*

*Students get really excited about the Brush at Lunch program; they ask to brush even before lunch!*

*The students, even though they're in 5<sup>th</sup> grade, love to put the sticker up on the chart when they have brushed their teeth!*

*Students enjoy brushing, and like the clean feeling in their mouth afterward.*

*The students tend to be happier, smile, and be more confident.*

### **Acceptability to Staff**

Overall satisfaction with the Future Smiles program was universal across the 3 schools. The majority of interviewees indicated they are very satisfied (78%) with the program, and the remainder indicated they are somewhat satisfied with the program (22%). Notably, participants who expressed a lower degree of satisfaction with the program offered recommendations for program improvement in conjunction with their response, and many noted that if the recommended strategies were implemented their satisfaction would increase. Several teachers mentioned that dental hygiene is part of the required health and science and careers (or community helpers) curricula, which helped them to make the case for prioritizing oral health, for example through participation in the Brush at Lunch program. Several participants also referenced their personal dedication to helping ensure their students have good oral health, a couple stressed that they wish a program like this had been in place when they were young because they suffered from oral health issues in their own childhoods.

*As a kid, I had problems. I care about this; I'm excited and connected to the program because of the benefits.*

Teachers expressed interest in continuing the Brush at Lunch program next year, and also recommended expanding it into all grades in the schools.

### **Other Supports**

The availability of Future Smiles staff was cited as a support for the inaugural Brush at Lunch program, during which some questions arose and were quickly dealt with by email.

## **Factors Challenging Future Smiles Program in the School**

### **Time**

For the Brush at Lunch program specifically, taking time out of the teaching day (which was described by one teacher as being scheduled down to the half-minute) to ensure students brushed their teeth was cited as the main challenge of implementing the program. However, several teachers remarked that implementing the program was less time-consuming than they feared initially. One teacher of special needs students noted that having committed, or having been asked to commit, to offering the Brush at Lunch program for a month helped her stay the course, and she discovered it got easier over time as the students became accustomed to the process.

For teachers of younger students, time required to clean the mess left behind in the sink after the students had finished brushing was also cited as a challenge. One teacher mentioned that pre-kindergarten teachers were reluctant to implement the program because they think it would be too much to try to accomplish during a shortened day.

One teacher reported having had to use a substitute teacher multiple on many days during the Brush at Lunch program, which compromised consistency of implementation because the substitute was not familiar with the program.

### **Enrollment and parental participation**

Many teachers described difficulties associated with the Future Smiles enrollment process, particularly noting that parents receive a large volume of paperwork at the beginning of the school year and the consent form may get lost among the other papers.

Some teachers who were familiar with the preventive services offered by the dental hygienist expressed concern about low levels of parental participation.

*There is not a lot of parental participation, which is bad. I teach pre-kindergarten, ages 3-5, and the kids are coming in with silver teeth, even caps.*

Few teachers reported having more than a few students pulled from their classes for preventive services. To a lesser extent, getting signed forms returned was also cited as a barrier to participation in the Brush at Lunch program, for which reported participation rates were between ~50% and 100%. A few teachers hinted that language may be a barrier to reading and understanding the forms; specifically one teacher



mentioned that the readability level of translated forms may be too high and need to be revised to an 8<sup>th</sup> grade reading level; it was also noted that some of the parents are illiterate.

### **Physical space**

The number and location of sinks for students to use to brush their teeth for the Brush at Lunch program was cited as an issue, particularly for teachers of young children who cannot brush their teeth unsupervised. A few teachers said they do not have sinks in their rooms. These teachers described being torn between remaining in the classroom with the students who are not participating in the program, or supervising students brushing their teeth. In many cases, students have to take turns to brush their teeth, which increases the amount of teaching time that is missed. This issue was particularly acute for teachers with large classes, and those in portable classrooms, which are far from the nearest available sink. One teacher in a portable classroom described having used play time, rather than teaching time, to implement the program.

### **Storing and distributing Brush at Lunch tools**

Several teachers described difficulties storing the Brush at Lunch tools in a hygienic manner. Teachers were keen to keep students' toothbrushes separate to avoid spreading germs; however, teachers that used the baggies the supplies came in to store the toothbrushes found that the toothbrushes never dried completely even if the bags were left open. Ideas teachers came up with to address this issue included: using an egg carton with holes punched in it to store the toothbrushes, paper plates cut in half, shoe boxes with holes cut in the lid, or using thin pencil holders. Several teachers also reported having written students' names on their cups, to ensure they were not sharing cups.

Teachers also thought using one big tube of toothpaste would speed up the brushing process<sup>2</sup>, and also allow the students to take home the small toothpaste tubes; however distributing the toothpaste was problematic. One teacher reported putting a dab of toothpaste on a paper towel for each of her students, and having them scoop it up on their toothbrush, to ensure the toothpaste tubes were not contaminated.

### **Availability of Brush at Lunch materials**

Some teachers described the Brush at Lunch materials (lesson plan, pre-post-questionnaire, and supporting books and teaching aids) as having been stored centrally in a teachers' lounge and shared between teachers. In several instances, teachers indicated they became aware of the materials too late to use them in the program. One teacher mentioned having requested a set of materials, which were sent to her by Future Smiles staff by email.

### **Other challenges**

The following other challenges were discussed:

- A couple of staff perceived that the Future Smiles staff did not appear to be on campus as frequently as they once had been, that they seemed to be stretched thin, or that the staff changed frequently.

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<sup>2</sup> Using one tube for the class is not possible unless the teacher places a dab on a paper towel or small disposable paper plate so the child could apply to their own toothbrush directly and without exposure to secondary exposure to other children's brushing materials.

- A couple of teachers indicated that students had been pulled for preventive services during inconvenient times, such as during testing. However, one teacher noted that in these cases the services can be rescheduled.

## **Recommendations for Improving Future Smiles Services or Delivery in Schools**

### **From Teachers: Preventive Services**

#### Consistency in program staff and schedules

Teachers recommended having dedicated Future Smiles staff for a school, to enable school staff to become familiar and build a rapport with them. This was also cited as a potential benefit for students receiving services, particularly younger students, to become familiar and comfortable with a provider. If this were not possible, one teacher suggested having a dedicated staff member providing services for students from pre-kindergarten to 2<sup>nd</sup> grade (and possibly providing photos of the hygienist that the children can look at to prepare for their visit). The Future Smiles program could develop relationships more readily by seeking out opportunities to interact with teachers and staff during lunch and school events or meetings. Having the hygienist go to the classrooms to get the students, rather than sending an assistant, was also cited as a potential aid to engaging with staff. While this is not a practical solution since hygienist time must be focused on clinical care, efforts to have the hygienist and assistant both come to each classroom early in the school year to introduce themselves to teachers, staff, and students may serve a similar purpose and create stronger relationships between the program and the schools as a whole.

A few difficulties with the preventive services schedule were identified, including students being pulled during “specials” so teachers do not know who has received services, as well as students being pulled during testing. One teacher suggested providing a schedule, which would also help ensure that substitute teachers are aware that students may be pulled on a given day.

#### Raise awareness of the program

A few teachers mentioned that the program’s visibility is low. These teachers recommended doing more advertising of the program directed at parents and staff, particularly newer staff.

#### Bigger facilities for preventive services

One teacher lamented that the school had lost one of its chairs for preventive services, and indicated the current room is too small. This teacher indicated that having a second chair would help ensure that pre-kindergarten students can be seen during the half day they attend school. While only one chair is located at each school, there was an occasion that a second chair was brought in at the end of the school year. Its removal may have seemed a “reduction” in chairs but is in fact not so. However, the facilities size is determined by the school and in this case, the school did relocate Future Smiles to a smaller room due to need for classroom space.

### Mechanisms for following preventive service outcomes

Teachers expressed a desire to be kept aware when students have an issue identified. A few teachers mentioned they were not aware of which students in the classroom were signed up for preventive services at all. One teacher recommended building in a mechanism for finding out who is signed up, whether they had been seen, and whether the hygienist's recommended treatment was completed by an outside dentist. Future Smiles may be able to use the grant-funded case manager available this year to pilot such a mechanism to facilitate follow-up on recommended treatments.

### **From Teachers: Brush at Lunch**

#### Timeframe for offering the Brush at Lunch program

As described above, the late months of the school year were perceived as very chaotic for trying to implement a new program, which may have resulted in teachers not having been aware of or having incorporated some of the Brush at Lunch supporting materials. Teachers recommended starting the program earlier in the school year. In addition, teachers who mentioned that dental hygiene is part of the required health and science and careers curricula recommended that the Brush at Lunch program coincide with the time of year the curriculum elements are offered (usually described as being in February) or during dental health month.

#### Availability of materials

To ensure teachers have access to as many Brush at Lunch materials as possible, provide either individual copies of the materials (lesson plans and pre-post-tests), or distribute them electronically to each teacher. Also advise teachers on what to do if they run out of toothpaste, including guidance for distributing toothpaste from a single large tube.

#### Brush at Lunch supplies

Provide teachers with supplies, or ideas, for how to store toothbrushes hygienically and avoid cross-contamination. Teacher recommendations included egg cartons, paper plates, shoe boxes with holes cut in the lid, and pencil holders. Teachers indicated that sharing supplies like the puppet and book is not a problem. Supporting teachers with younger students who cannot brush independently was also noted as a need and one that if Future Smiles were to assign dental assistants to help monitor the students brushing in the school bathrooms, may help the teachers manage the additional burden.

#### Other recommendations

- Teach younger children about why it is important for a dental hygienist and dentist to wear a mask, to minimize their fear of going with the hygienist or dentist.
- Encourage students to share what they learn with their siblings.
- Go over the Brush at Lunch program with students thoroughly before sending the consent form home.

## **Additional recommendations based on the study findings**

### Identify opportunities to raise awareness among staff and parents of the services offered by Future Smiles

Many teachers mentioned the free lunch that was offered during the Brush at Lunch introduction, thus offering food appears to be a compelling draw for teachers that could be leveraged to conduct broader awareness-raising activities. One teacher mentioned specifically that the session took place on a professional development day, which may be a good option for Future Smiles to get time with teachers. Options could include a tour of the location in the school where services are performed, and introductions to Future Smiles staff. Some teachers indicated that parents had low awareness of the program and its potential benefits for their children, so encouraging staff to remind parents of the services offered (for example during monthly parent meetings, open houses, math nights, science nights, etc.) may help to address this barrier to participation. If possible, having Future Smiles staff present information about the program to parents would also help raise awareness and encourage participation.

### Identify new strategies to increase enrollment and facilitate parental consent receipt

Some teachers noted barriers to obtaining parental consent forms from parents related to both the reading level of the forms and to the timing of their distribution—especially at the first of the school year when many forms are being sent home to parents. To increase enrollment and active parental consent, Future Smiles should review the consent form and make efforts to simplify the language wherever possible. Future Smiles may also wish to consider follow-up via phone call to parents who do not sign/return a consent form in order to describe the program and seek a verbal approval for their children to participate. While the school and district may have to approve this enrollment strategy, it may help to reach families who are missing out of Future Smiles services for their child due to not having returned a consent form. Anecdotally, it seems also that some parents have difficulty with English and/or reading such that only sending a written consent form home may be a barrier to understanding what Future Smiles is offering students and to obtaining a returned consent form. This may be overcome by offering additional consent outreach and other modes of consent such as verbal consent.

### Identify best practices for incorporating Brush at Lunch activities as seamlessly as possible into the teaching day

Several teachers reported having been concerned about finding time in the teaching day to implement the Brush at Lunch program. However, many of these teachers found that after the first few days, once a routine was developed, the brushing activity was minimally disruptive (this varied by age, with the youngest students requiring the most hands-on support for brushing, etc.). Incorporating this potential concern and ideas for addressing it could help boost teacher participation in Brush at Lunch.

## **Conclusion**

Many examples of the health and educational benefits of Future Smiles were cited by the teachers interviewed at the three elementary schools. Clearly the program is meeting the urgent dental needs of its participants and often is serving as the sole preventive oral health care source for many students living in poverty in Clark County School District. It is also clear that the act of providing these services in schools, educating students about maintaining good oral health, and engaging teachers through programs such as Brush at Lunch, offer benefits to students beyond the identification of untreated oral decay and the application of sealants to help prevent future decay—it offers students and their families the motivation, skills, and supplies to establish good, lifelong oral health care practices.

While teachers overwhelmingly indicated support for the activities carried out by Future Smiles in their schools, they also had constructive and specific recommendations for program improvement. These recommendations, and additional ones derived from insights shared during the interviews, appear to have a low implementation burden and high yield in continuing to build relationships between the school staff, Future Smiles, and students. Implementing these recommendations will help ensure the program runs smoothly and barriers to its impact on students' oral health, education, and families are minimized.





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