

# A Dental Health Curriculum for Students in Grades K-6 (Merced County)

## A Guide for Using the Curriculum:

- The curriculum is divided into two sections — one section tailored for students in grades K-2 and a second section tailored for students in grades 4-6
- Instructions for the teacher or health educator are presented in *italics*
- Newly introduced key terms or concepts are underlined
- The type of instructional method or activity is introduced in CAPITAL LETTERS
- Within the modules of this curriculum, you will see color-coded boxes:
  - A **pink box** identifies:
    - the module's purpose
    - the learning outcome(s)
    - the ideal grades for this module
    - the estimated time required for the module
  - A **blue box** identifies the audio-visual product or other tool/prop that will be used as an educational resource for a module/lesson.

**An Outline of the Curriculum:**

Module	Estimated Duration	Learning Outcomes
<b>Recommended Curriculum for Grades K-2</b>		
<b>Module 1:</b> What makes our teeth so important?	20 minutes	<ul style="list-style-type: none"> <li>▪ Teeth are very important. We need them for several essential tasks.</li> </ul>
<b>Module 2:</b> What is a cavity (tooth decay), what causes it, and how do we prevent it?	28 minutes	<ul style="list-style-type: none"> <li>▪ Plaque contains germs that can cause a cavity and hurt my gums.</li> <li>▪ Brushing and flossing the plaque off teeth is how we keep our teeth and gums healthy.</li> <li>▪ There is a recommended way to properly brush/floss teeth.</li> <li>▪ Teeth should be brushed with a fluoride toothpaste.</li> <li>▪ Leftover toothpaste should be spit out (not rinsed out) when they finish brushing.</li> <li>▪ Toothbrushes should be replaced every 3 months.</li> </ul>
<b>Module 3:</b> Which foods or drinks can lead to a cavity and which ones do not?	15 minutes	<ul style="list-style-type: none"> <li>▪ Sugar has many different names. Regardless of the name, sugar feeds the germs in a child’s mouth and can lead to a cavity.</li> <li>▪ Water is the healthiest drink. It has no sugar and (if fluoridated) can help to prevent cavities.</li> <li>▪ The food and drink choices we make affect our ability to prevent cavities.</li> </ul>

<b>Module 4:</b> Why is it important to visit a dentist regularly?	5 minutes	<ul style="list-style-type: none"> <li>Seeing a dentist regularly is one of the ways that children can prevent plaque and germs from causing a cavity.</li> </ul>
<b>Recommended Curriculum for Grades 4-6</b>		
<b>Module 1:</b> What is a cavity (tooth decay), what causes it, and how do we prevent it?	22 minutes	<ul style="list-style-type: none"> <li>Seeing a dentist regularly is one of the ways that children can prevent plaque and germs from causing a cavity.</li> <li>The dentist and other members of the dental team clean teeth and provide other types of care to help keep children’s mouths healthy.</li> </ul>
<b>Module 2:</b> How do we know which foods and drinks have sugar in them?	14 minutes	<i>A brief quiz to review key lessons that students learned</i>
<b>Module 3:</b> Why is a mouth guard important?	5 minutes	<ul style="list-style-type: none"> <li>A mouth guard can lessen the risk of a dental injury.</li> <li>Three tips can help a child or teen choose and wear the proper mouth guard.</li> </ul>
<b>Module 4:</b> What have we learned?	15 minutes	<i>A brief quiz to review key lessons that students learned</i>



# **Curriculum for Grades K-2**

## Module 1: What makes our teeth so important?

### Lesson 1.A (5 to 7 minutes)

ENGAGE THEM: What are your teeth for?

*Wait for the children in your class to respond. Their answers should include the following:*

- Biting and chewing food
- Smiling
- Talking
- Singing

FUN ACTIVITY:

- In just a few seconds, I am going to give you all a word, and I want each one of you to say that word aloud. But I want you to try to say this word without letting your tongue touch your teeth. Okay? Are you ready for me to tell you what word to say? (*Wait for children to say they are ready.*) The word I want you to say is “one.” Say that word without letting your tongue touch your teeth.
- (*Watch the children pronounce the word “one” without allowing their tongues to touch their teeth.*) Okay, good. That wasn’t hard, was it? Now, let’s try to say a different word — and this word is also a number.
- Are you ready? The new word I want you all to say is “three.” Try to say that word without letting your tongue touch your teeth.
- (*Watch the children pronounce the word “one” without allowing their tongue to touch their teeth.*) Can you say “three” without letting your tongue touch your teeth? It’s very hard to say that word without your tongue touching your teeth. I guess that shows how important teeth are. Without teeth, people might not understand what we are saying ... right?

**Purpose:** Introduce the topic. Raise awareness with basic information about dental health that is appropriate for K-2 students.

**Learning outcome:**

- Teeth are very important. We need them for several essential tasks.

**Estimated duration:**  
20 minutes

### Lesson 1.B (2 to 3 minutes)

ENGAGE THEM: Are your teeth hard or soft?

*Wait for the children in your class to respond. They should agree that teeth are hard. Now, ask them this question:*

Imagine if our teeth were soft instead of hard. How would things change if we had soft teeth?

*Their answers should include that it would be tougher for them to bite and chew food.*

Okay, so to work properly, our teeth need to be hard and strong.

### Lesson 1.C (5 to 7 minutes)

ENGAGE THEM: Do the teeth that are in your mouth right now stay there forever? What do you think?

*Allow time for a number of children to respond and then let them know the answer.*

The teeth in your mouth right now will **not** stay there forever. But don't worry — your teeth won't fall out at the same time. It happens slowly, over several years. Starting at about age 6 or 7, your teeth begin to fall out and new teeth will come into your mouth to take their place.

WELCOME THEIR STORIES: Have any of you had a tooth that became loose and later fell out of your mouth? If so, tell us about it.

*See if one or more children raise their hands. If so, ask a few of them share their story with the rest of the class. This is a good way for children to learn from each other. Children who haven't had this experience will be relieved to hear that the teeth came out or fell out without causing pain.*

Thank you for sharing what happened to you. That is very interesting! Do you know what this means when one of your baby teeth becomes loose and falls out? It is one more sign that you are growing up. As you grow up, your baby teeth are replaced by adult teeth.

Baby teeth are supposed to fall out at a certain time. If they fall out too early, that is not good. Baby teeth should stay in the mouth until they fall out on their own. By then, adult teeth are ready to come into the mouth to replace the baby teeth that you have lost. To keep our baby teeth from falling out too early, we must take good care of these teeth.

Do you have any questions?

### **Lesson 1.D (2 to 3 minutes)**

ENGAGE THEM: We talked about baby teeth and how we don't want them to fall out of your mouth too early, right? The best way to prevent teeth from falling out too early is to take good care of them. If we don't take care of that, what can happen to teeth?

*Wait for the children to respond. Their answers should include the following:*

- Teeth can start hurting — cause pain
- Teeth can get a cavity
- Teeth can be chipped or cracked

Good answers! Yes, if we don't take good care of our teeth, bad things can happen to them. These bad things can make our teeth hurt or ache. These bad things can cause a tooth to fall out of the mouth too early, and we don't want that to happen, right?

**Module 2:** What is a cavity (tooth decay), what causes it, and how do we prevent it?

### Lesson 2.A (2 to 3 minutes)

ENGAGE THEM: We need to take good care of our teeth to keep bad things from happening to them. One of those bad things is called a cavity. Has anyone heard the word “cavity” before?

*Wait for the students to answer, then proceed.*

Teeth should be hard and strong. A cavity happens when a very small hole starts to form in a tooth. This hole can grow bigger and bigger, and it can cause a tooth to start hurting unless it is fixed. Let’s talk about what causes the hole that we call a cavity. What do you think causes a cavity?

*Wait for the students to respond.*

Thanks for your answers. Some of you are on the right track. Here’s how tooth decay happens. There is a very thin and sticky film called plaque that is on the outside of our teeth or in between teeth. Plaque contains germs. These germs feed on the sugar that we eat or drink.

Those germs can hurt our teeth by creating the hole that is a cavity. Little by little, that hole can get bigger and bigger. And maybe other holes start to form in the tooth. When you poke holes in something, does it get stronger or weaker? What do you think?

*Wait for the students to respond.*

Right, when holes form in something, it becomes weaker. When a hole — what we call a cavity — forms in a tooth, the tooth becomes weaker. Plaque and cavities make our teeth weaker. The germs in plaque can even hurt our gums. That is why it is important to brush all the plaque off of our teeth.

*Depending on the age level of your students, some of them might not know what the gums are. You might want to confirm that everyone understands that the gums “are the pink skin that is right above or below the teeth.”*

### Lesson 2.B (2 to 3 minutes)

FUN ACTIVITY: I want each of you to think of something that you do at home to keep yourself clean. *Wait several seconds.* Does anyone want to say something they do at home keep clean?

**Purpose:** Make them aware of plaque and how the germs (bacteria) within plaque can harm teeth and gums.

#### Learning outcomes:

- Plaque contains germs that can cause a cavity and hurt my gums.
- Brushing and flossing the plaque off teeth is how we keep our teeth and gums healthy.
- There is a recommended way to properly brush and floss teeth.
- Teeth should be brushed with a fluoride toothpaste.
- Leftover toothpaste should be spit out (not rinsed out) when they finish brushing.
- Toothbrushes should be replaced every 3 months.

**Estimated duration:**  
35 minutes

Give the students a minute or two to write down their answers. Hopefully, their answers should include the following:

- Take a bath
- Wash their hair
- Wash their hands
- Wear clothes that have been washed

Ask students to verbally share some of the things they wrote down on their paper.

Very good! You have done an excellent job of sharing the different things that people do to keep themselves clean. So why is it important to have clean hands, a clean body and to wear clean clothes?

Wait for the students to respond. Their answers should include the following:

- To keep ourselves from getting sick
- To keep ourselves from making others sick
- To smell nice

Yes, these are good reasons for keeping ourselves clean. Keeping our teeth clean is another way of being clean. So how do we keep our teeth clean?

Wait for the students to respond. Their answers should include tooth-brushing and flossing.

Yes, brushing teeth and flossing teeth are excellent ways to keep our teeth clean.

## Lesson 2.C (13 to 14 minutes)

Brushing is like swimming or riding a bike. It takes practice, but the more you try, the better you get at doing it properly.

VIDEO: Now, we are going to watch a video that shows us the right way to brush teeth and the right way to floss teeth.\*

Start the video called [Keeping Your Teeth Healthy](#) (produced by the Los Angeles Trust for Children’s Health). This video runs almost 9 minutes. Once the video is over, help the students review all the things they have learned. During the review, hold the toothbrush that you brought as you can use this to demonstrate some of the key points, such as brushing “in tiny circles”.

\*Most children start brushing their own teeth by themselves at about age 7 or 8 — some start doing this earlier, some start later. Dentists often tell parents that a child lacks the physical coordination to brush their teeth all by themselves. Once a child is about tie their own shoes (typically age 7 or 8), they can brush their teeth by themselves. Until then, parents need to help their children brush and model the proper techniques.

### Video & Props:

- This lesson is accompanied by a video called “Keeping Teeth Healthy.” This video can be accessed at <https://vimeo.com/430043774/6132036546>
- If possible, bring an unused toothbrush with you to the classroom. You will hold this to help demonstrate a few key lessons.

Okay, now let's review what we learned from this video:

<i>Teacher asks:</i>	<i>Correct answer:</i>
How many times should you brush your teeth each day?	2 times each day
Each time that you brush your teeth, how long should you brush?	2 minutes
Do you only brush the teeth or should you also brush the gums?	Also brush the gums
When you move your toothbrush, what shape should you make with the brush?	Tiny circles
What parts of your teeth should you brush?	<ul style="list-style-type: none"> <li>▪ The outside of your teeth</li> <li>▪ The inside of your teeth</li> <li>▪ The chewing surfaces of your molars (back teeth)</li> </ul>
Do you remember how she showed us to floss our teeth? She used the shape of a letter. What letter was it?	The letter V
How many times each day should we floss our teeth?	1 time — right before bed

### **Draw a picture about taking care of their teeth:**

Here's a fun activity to consider — ask each student to draw a picture (using a pencil, pen or crayons) to show what they can do at home to take care of their teeth. They can draw about brushing. They can draw about flossing. Share and/or display their pictures.

### **Lesson 2.D (2 to 3 minutes)**

ENGAGE THEM: When you brush your teeth, what do you put on your toothbrush?

*Wait for the students to respond.*

Of course, toothpaste! Toothpaste is used because it helps to clean your teeth and remove crumbs that are left behind from something you have eaten. The best toothpaste has fluoride in it. Fluoride is a mineral that makes teeth stronger. Stronger teeth are less likely to get a cavity.

So we have learned how to brush our teeth using a toothpaste that contains fluoride. But when you finish brushing your teeth, what should you do with the toothpaste that is in your mouth?

*Wait for the students to respond. Some of them may answer “rinse my mouth with water” — but this is **not** recommended.*

Did someone say “spit it out”? Yes, that is the right thing to do. Spit out the toothpaste that is left in your mouth into the sink. Don’t swallow it. Don’t rinse it out with water. Just spit it out into the sink.

**ACTIVITY:** Consider involving students by leading them in a song. This song is sung to the tune of “Row, Row, Row Your Boat.” If you want to pass out the words for this song, they are on **Sheet 1**, near the end of this document.

Brush, brush, brush your teeth, brush them every day.  
Right, left, up, down, clean the plaque away.  
Brush, brush, brush your teeth, brush them every day.  
Front, back, take off the plaque, now we smile all day.

### Singing a Song:

If time permits, consider leading your class in singing a song (see **Sheet 1** near the back of this document). This is a fun way to reinforce their awareness of plaque and the importance of brushing. This song comes from an educational guide produced by the California Dental Association.

### Lesson 2.F (2 to 3 minutes)

**VIDEO:** We have talked a lot about the importance of brushing our teeth with a fluoride toothpaste. I mentioned that flossing is also important. Now, we are going to watch a video that shows how to floss teeth. Start the video called “Don’t Let Plaque Stick Around” by Delta Dental of Iowa. This takes less than 1 minute. The video [can be accessed here](#).

**ENGAGE THEM:** The pieces of Play-Doh that you saw in the video are like the crumbs and particles of food that can get stuck in our teeth after we eat a meal. I’ve placed the same items that you saw in that video on a table. Let’s go to the table and some of you will have a chance to show how to floss teeth.

Give several students a chance to use one of the pipe cleaners to show how to floss teeth.

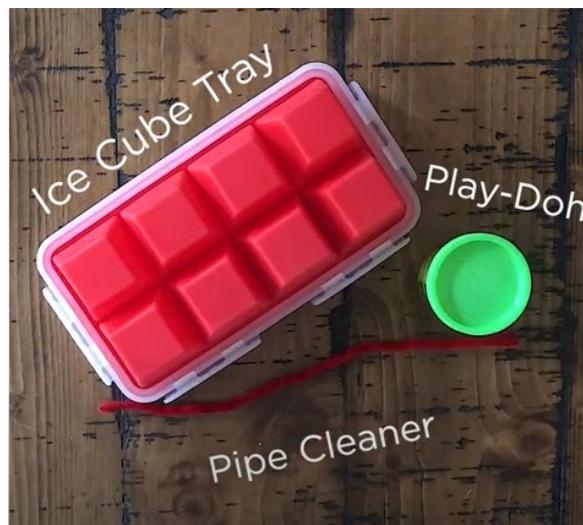
### Lesson 2.G (2 to 3 minutes)

**ENGAGE THEM:** We have talked how important it is to brush our teeth with a fluoride toothpaste — once right after breakfast and another time before bed. We have also talked about the need to floss teeth once each day.

Now, I am going to hand out a sheet of paper that shows all of the days in February.

### Video & Props

- Show the video (see the hyperlink on the left side of this page).
- Bring the following items to class to demonstrate how to floss teeth:
  - A plastic ice tray
  - Play-Doh
  - Pipe cleaners



*Hand out a copy of **Sheet 2** to all students.*

Every day that you brush your teeth twice and that you floss once, you can draw a star inside the box for that day. Do you understand what I mean? Are there any questions?

Do you know why we are going to do this during the month of February? Because February is recognized as National Children's Dental Health Month. It's a time to remind us of how important our teeth and our gums are.

***Another option:** Place a sheet of "star" stickers (or stickers of some other shape) on your table or desk. Each day, encourage students to go to the table and bring their calendar with them so they can put a sticker on the right date to signify the good habits they are showing.*

**Module 3:** Which foods or drinks can lead to a cavity and which ones do not?

**Lesson 3.A** (13 to 15 minutes)

ENGAGE THEM: Where do the germs hide in our mouths? They hide in plaque, don't they? And what does plaque feed on? Do you remember?

*Wait for the students to answer, then proceed.*

Yes, plaque loves sugar. This means that the more sugar we eat or drink, the more we are helping the germs in plaque. By helping the germs, we can hurt our own teeth and gums — and we don't want to do that.

By learning more about sugar, we can make better decisions about what we eat and what we drink.

What kind of foods have sugar in them?

*Wait for students to respond with answers.*

What kind of drinks have sugar in them?

*Wait for students to respond with answers.*

Can you think of a drink that does not have any sugar in it?

*The correct answer is water. Dairy milk has some natural sugar (lactose) in it, and some types of almond and soy milk have added sweeteners.*

**Purpose:** Raise awareness of how dietary choices affect dental health.

**Learning outcomes:**

- Sugar has many different names, but regardless of the name, sugar feeds the germs in a child's mouth and can lead to a cavity.
- Water is the healthiest drink. It has no sugar and (if fluoridated) can help to prevent cavities.
- The food and drink choices we make affect our ability to prevent cavities.

**Time needed:** 15 minutes

**Module 4:** Why is it important to visit a dentist regularly?

**Lesson 4.A** (5 minutes)

ENGAGE: We have talked about the importance of brushing our teeth twice each day to prevent cavities. Eating healthy food and avoiding a lot of sugar is also important. These are things we can do at home to take care of our teeth.

But there is something we can do away from our home to help protect our teeth — going to the dentist!

*Play a brief video for students that shows a child named Sam who goes to the dentist. The video lasts almost 2 minutes. Afterward, have a brief discussion with students.*

- For those of you who have been to a dentist, did the dental office that Sam visited look like the one that you visited? *(The goal is to get them talking and sharing their impressions. Hearing about positive experiences from their peers can make children less anxious about their first dental visit.)*
- Sam got to wear some cool-looking sunglasses, didn't he? Why did the dentist give Sam those glasses to wear? *(Correct answer: To avoid the glare of the bright light shining down in Sam's face.)*
- Why did the dentist put on gloves and a mask before he started looking inside Sam's mouth? *(Correct answer: To avoid sharing or spreading germs.)*

Some people don't think they need to go to a dentist unless they have a tooth that is hurting or their gums are hurting. But the way to keep your teeth and gums healthy is to go to the dentist two times each year. That means you should go to the dental office two times in between each birthday.

**Purpose:** The objective is to start familiarizing young children with the idea of going to a dental office to receive care

**Learning outcomes:**

- Seeing a dentist regularly is one of the ways that children can prevent plaque and germs from causing a cavity.

**Estimated duration:** 5 minutes

**Video**

This video is called "A Real Kid Visits the Dentist" and it was produced by PBS Kids. It is aimed ideally at children in grades K-3.

The video lasts 1:52 and can be accessed on YouTube at

<https://www.youtube.com/watch?v=VT-6J1v-Ydw>



# **Curriculum for Grades 4-6**

**Module 1:** What is a cavity (tooth decay), what causes it, and how do we prevent it?

### Lesson 1.A (4 to 5 minutes)

ENGAGE THEM: The outside of our teeth is called the enamel. The enamel on our teeth is one of the hardest parts of the human body. But even though they are very hard, teeth can be damaged. Have any of you ever been playing with someone and suddenly they were hit in the mouth with something that caused their tooth to crack or a small piece of their tooth was chipped off? Maybe this happened to you and not to your friend. Yes?

*See if any students have a brief story they want to share about this. Then proceed.*

Teeth may be very hard, but we need to take care of our teeth to make sure bad things don't happen to them. An injury or accident is one bad thing. But is there another bad thing that can happen to someone's teeth.

*Wait for the students to answer. Hopefully, one of them will answer "a cavity."*

Yes, a cavity can form in our teeth and that can weaken a tooth and even make it start hurting if it isn't treated. What happens is there are germs in our mouth called bacteria. The bacteria feeds on some of the foods and drinks that enter our mouths.

The bacteria in our mouth is found in several places. But its favorite hiding place is something called plaque. Plaque is a sticky film that forms on our teeth. The bacteria in plaque feed on sugar — and they release acid that slowly damages the enamel of our teeth.

The more sugar we eat or drink, the more we are helping the bacteria that hide in the plaque. By helping the germs, we can hurt our own teeth and gums. Sugar is one of the favorite things that bacteria like to feed on. When we eat candy or other foods with sugar, the bacteria feed on the sugar. This is also true when we drink sugar from soda and other sugary drinks. After feeding on the sugary foods and drinks, the bacteria create a liquid that has a lot of acid in it. This acid damages the enamel surface of your teeth.

### Lesson 1.B (9 to 10 minutes)

ENGAGE THEM: I am going to show you something that will give you an idea of how acids that hit the enamel of our teeth can damage it by wearing it down. This doesn't happen right away. Eating or drinking a lot of sugary foods or drinks on one day won't cause much damage. But if you eat or drink a lot of sugary foods, the enamel can be weakened over weeks or months.

**Purpose:** Make them aware of plaque and how the germs (bacteria) within plaque can harm teeth and gums.

#### Learning outcomes:

- Plaque contains germs that can cause a cavity and hurt my gums.
- Brushing and flossing the plaque off teeth is how we keep our teeth and gums healthy.
- There is a recommended way to properly brush and floss teeth.
- Teeth should be brushed with a fluoride toothpaste.
- Leftover toothpaste should be spit out (not rinsed out) when they finish brushing.
- Toothbrushes should be replaced every 3 months.

#### Estimated duration:

22 minutes

*Have all of the items visible on a table or counter so students can see them. Only bring 1 of the eggs to the table; the other egg should be stored in a refrigerator where it can be accessed later. Ask students to gather around so the demonstration is visible to all.*

Now, as you can see, I have a glass, an egg and a bottle of something called vinegar. I am going to take a picture with my cell phone camera of what the egg looks like right now so we can compare it with what the egg looks like in a couple of days.

Vinegar is acidic — that means it has acids in it. I am going to place the egg inside the glass. Now, I am going to pour vinegar slowly over the egg.



*Pour just enough vinegar into the glass to cover the egg. Don't worry if the egg floats a little. You are likely to see bubbles form soon after the vinegar is added.*

Think of the egg as the enamel of your teeth. When someone drinks sugary drinks and eats sugary foods a lot, they are exposing their enamel to an acidic liquid like this. We are going to let the egg stay in this acid solution for a couple of days — then we'll take a look at it and see what it looks like.

*Move the glass with the egg and vinegar to a location where it will not be disturbed for the next 48 hours. It does not matter if it is refrigerated.*

*Two days later, retrieve the glass and show it to the whole class. Bring the extra egg with you too. Most or all of the egg's shell should have dissolved. Take another photo so it can be compared with the original photo that was taken right after the vinegar was poured over the egg.*

Take a look. Does the egg look different than it did two days ago? Yes, it does look different. The acid slowly dissolved most of the white shell and as a result, the egg is weaker than it was before. I will take it out of the glass and we'll see.

*Slowly pour the vinegar out of the glass, placing your fingers at the bottom to allow the vinegar to drain out but catch the egg from falling into the sink or cup that you have poured the vinegar. The egg will be*

The egg feels softer and weaker. Why? Because it has no shell to protect it.

*Consider allowing a few students to hold the egg that was never stored in the vinegar and, right afterward, letting them hold the egg after it was exposed to the vinegar for two days. Remind them to be very careful holding each egg, especially the egg that was stored in vinegar.*

We can see the effect that acid has on an egg. Even though our teeth are harder than an egg shell, acid can slowly damage our teeth if it constantly touches the enamel of our teeth.

## **Demonstration**

This demonstration helps students understand how acids can damage teeth enamel. Here is what you will need:

- A jar or glass with a wide opening
- 2 white eggs
- White vinegar

What can we do to protect our teeth from the acid attacks that come from bacteria?

*Wait for students to offer answers.*

Yes, brushing our teeth with a fluoride toothpaste is important. And so is limiting the amount of sugar that we eat or drink each day.

### **Lesson 1.C (6 to 7 minutes)**

*For this lesson, have two toothbrushes with you that you can use as a prop to reinforce the key messages. Both of the toothbrushes should have been labeled on their packages as “Soft” — meaning the brush has soft bristles. Take only one of the toothbrushes out of the package in which it was sold.*

ENGAGE THEM: You need to use the right kind of toothbrush to brush your teeth twice a day.

*(Pointing to the bristles of the toothbrush)* Who knows what this part of the toothbrush is called?

*Wait for their responses.*

Correct – these are the bristles of the toothbrush. Dentists recommend that children use a toothbrush that has soft bristles. The way to tell if your toothbrush has soft bristles is to look at the outside of the package.

*(Hold up the other toothbrush, which is still in its package)*

It should have the word “Soft” somewhere on the outside package like this toothbrush does.

ENGAGE THEM: Does a toothbrush last forever?

*Wait for the students to respond. Have the toothbrush in your hand so you can use it as a prop for the following dialogue:*

No, a toothbrush does **not** last forever. *(Pointing)* This part of the toothbrush is called the bristles. After weeks and weeks of being used, the bristles can get worn-out. A toothbrush with worn-out bristles loses the ability to brush away germs and plaque.

Every 3 months, it is time to change your toothbrush. Think of it this way: you should have a different toothbrush for each season.

- You should use one toothbrush for spring.
- When summer arrives, throw out that toothbrush and switch to a new one.
- When the leaves are starting to turn red, yellow, orange and brown and falling down, that’s when autumn has arrived — so it’s time to get a new toothbrush for autumn.
- The same is true for winter: get a new toothbrush.

## Module 2: How do we know which foods and drinks have sugar in them?

### Lesson 2.A (10 to 12 minutes)

By learning more about sugar, we can make healthier decisions about what we eat and what we drink.

When your family shops for groceries, it should be easy to find out which foods or drinks have sugar in them. Where would you look to see if something has sugar in it?

*Wait for students' responses.*

Yes, the best way to learn about whether a drink or a food contains sugar is to read the label and see what ingredients are in it. But it's kind of tricky because sugar is not only called sugar.

Most adults like me have only two names that we are called by other people. My friends and my family call me by my first name. But my students call me Mrs./Mr. \_\_\_\_\_. Sugar has a lot of different names — not just two names.

Sometimes sugar is called “sugar.” But there are other names for sugar too. If we want to be able to understand what we are eating, we have to be aware of the different names that sugar is called.

*Walk over with your students and ask them to stand around the table with you so everyone can see the items inside the bowl. (See the blue box to the right.)*

I am going to give each of you a sheet of paper. This paper shows many other names for sugar.

*Hand out Sheet 3. It lists corn syrup, high-fructose corn syrup and honey among the other names for sugar. A student might ask about the “pink” or “blue”*

**Purpose:** Make them aware of plaque and how the germs (bacteria) within plaque can harm teeth and gums.

#### Learning outcomes:

- Plaque contains germs that can cause a cavity and hurt my gums.
- Brushing and flossing the plaque off teeth is how we keep our teeth and gums healthy.
- There is a recommended way to properly brush and floss teeth.
- Teeth should be brushed with a fluoride toothpaste.
- Leftover toothpaste should be spit out (not rinsed out) when they finish brushing.
- Toothbrushes should be replaced every 3 months.

**Estimated duration:**  
22 minutes

#### Tools or Props

1. Hand out copies of “Sugar Has Many Names” handout (*Sheet 3 near the back of this document*)
2. Bring the items listed below. Once you get to the classroom, place those items inside the bowl. (Try to avoid bringing glass or breakable containers).
  - A packet of white sugar
  - A package of cookies
  - A can of soda (with high fructose corn syrup)
  - 20-ounce bottle of Gatorade (not a zero sugar variety)
  - A container of honey
  - A container of ketchup
  - A container of yellow mustard

*packets that someone in their family uses. You can explain that these are artificial sweeteners; they are not sugar.*

That's what makes sugar so sneaky. It can hide behind different names. Now, let's take a look at the items on this table and see whether they have sugar in them.

*Hold up the packet of sugar. What is this? Yes, it is sugar.*

*Now, ask one of the students to hold up the box of cookies. What do all of you think? Do these cookies have sugar in them? Do you think sugar is one of the ingredients?*

*Wait for their response and then ask the student who is holding the cookies:*

Look at the package and see if you can find the ingredients — the list of things that were used to make the cookies. *Wait for the student to find the ingredients section.* Do you see sugar in the list of ingredients? Yes, it contains sugar.

*Next, hold up the can of soda. What about this? Do you think this has any sugar in it?*

*Wait for the students to respond.* Soda is definitely a sweet drink, but let's find out if it contains sugar. Okay, I want one of you to take this can of soda and find where the ingredients are.

*Pick a student volunteer and then address that student:* Take a look and see if “sugar” is one of the ingredients in this soda. *Wait several seconds.* If you don't see sugar, maybe you should look for one of the other names that sugar is called.

Look at the sheet of paper I gave you. See the 2nd name that is listed — high fructose corn syrup. Is that name in the ingredients?

*Go through the remaining items that you placed on the table. Try to emphasize the following points:*

- *Something may be called a “sports drink” but it has a lot of sugar, just like soda.*
- *Honey is on the list because it is sugar too. The germs in our mouth love honey as much as they love other types of sugar.*
- *Students are unlikely to think of ketchup as a “sweet” food or sauce. Nonetheless, it too has sugar in it. But the sugar in ketchup may have a different name.*
- *Mustard does not contain sugar. If someone likes both ketchup and mustard, adding mustard (instead of ketchup) to their sandwich or food would not add more sugar — sugar that would “feed” the germs in the plaque that lead to cavities.*

## **Lesson 2.B (13 to 15 minutes)**

ENGAGE THEM: Do you remember the drinks that we had on the table? We had a can of soda and a bottle of a sports drink. Did they both have sugar in them or did just one of those drinks have sugar? *Wait for the students to respond.* Yes, both of those drinks have a lot of sugar. They might use sugar with a different name, but it is still sugar.

Most of the sugar that you get comes from sugary drinks. We have talked about two sugary drinks — soda and sports drinks. Look at this plastic bottle of soda. The label says it contains 20 ounces of soda. But what does the label tell us about the amount of sugar it contains?

Turn the bottle around so students can see the label of ingredients. Pepsi contains 69 grams of sugar, while a Coke of this size contains 65 grams of sugar.



I have a teaspoon so we will have to convert grams into teaspoons. There are about 4 grams in every teaspoon? So, the first step is to divide the number of grams by 4. Can I have a volunteer who will do that for me?

Pick volunteer and wait for them to do the division by hand or using a calculator. If the 20-ounce bottle is Pepsi, the answer should be 17.25 (rounded off to 17). If the bottle is Coke, then the answer should be 16.25 (rounded off to 16).

Okay, so we know about how many teaspoons of sugar are in this bottle. But let's see how much sugar that is.

Use the teaspoon to start scooping sugar out of the sugar container and toss it into the clear plastic cup so students can see the sugar slowly grow. Be sure to scoop the correct number of teaspoons for Pepsi (17) or Coke (16), whichever brand you have at the demonstration. Encourage them to count with you as you take each scoop — “1 teaspoon ... 2 teaspoons ... 3 teaspoons ...” and so on.

What do you think?

Give students a chance to react to seeing all of that sugar in the plastic cup.

That's a lot of sugar, isn't it?

### **Lesson 2.C (5 to 6 minutes)**

Now, I am going to give you another sheet of paper. This shows three groups of drinks, and we will talk about them. Hand out **Sheet 4**, which is titled “Three Kinds of Drinks.”

Soda, sports drinks and fruit juice are what we call “Sometimes” drinks. Why do you think we call them “Sometimes” drinks?

Wait for the students to respond.

Yes, because we should only drink them sometimes. But we should not drink them every day.

There is one “Never” drink. Energy drinks are a never drink, and that's because energy drinks contain something called caffeine that can harm a child's or teenager's health.

There are other drinks that are “Always” drinks. We call them that because it is always a good time to have these drinks. Water is an always drink. Water is a drink that has no sugar at all. Drinking low-fat white is an always drink. Soda, sports drinks and fruit juice have a lot of sugar, but water doesn't have sugar. Drinking water means sugar will not feed the germs in your plaque that can cause cavities in your teeth. White milk has a little sugar but much less than the “Sometimes” drinks.

When you drink water, where does it come from?

*Wait for the students to respond. Their answers should be the tap/faucet and from plastic bottles.*

Yes, drinking water comes from the tap or faucet in your home. Drinking water also can come from plastic bottles that are bought at a grocery store or convenience store.

There's another reason why it is healthy to drink tap water. Here is the reason — many water companies provide water that has the right amount of fluoride to help protect teeth against cavities. This kind of water is called fluoridated water. Many people here in Merced County get fluoridated water when they turn on the faucet in their kitchen, but not everyone. It depends on the water company that pumps the water into your home. Bottled water is different. Most brands of bottled water do not have enough fluoride to protect teeth.

### Module 3: Why is a mouth guard important?

#### Lesson 3.A (5 minutes)

ENGAGE THEM: Some of you may play a team sport like basketball, soccer, softball or football. Raise your hands if you play a sport.

*Wait for the students to raise their hands. Ask several students who raised their hands what sport they play.*

Playing a sport is a good way to get exercise and stay active.

We have talked about protecting teeth by preventing cavities. But cavities aren't the only way for your teeth to become damaged.

Someone who plays a sport could be accidentally hit in the mouth or jaw, and that could hurt some of your teeth. Have any of played a game where someone got hurt?

*Wait for the students to respond and share a story or two.*

Mouth guards are a good way to protect your teeth from being chipped, cracked or broken. Have any of you worn a mouth guard to protect your teeth?

*Wait for the students to respond.*

As you get older and play different types of sports, your need to wear a mouth guard may become stronger. Here are three tips:

1. Ask your parents to check with your team's coach or manager to see whether they recommend a mouth guard for playing that sport.
2. The next time you go to the dentist, bring your mouth guard with you. Ask the dentist to take a look at it. They can tell you whether the mouth guard fits properly or whether you might need to get a replacement.
3. Most mouth guards for sports need to be replaced after each season because wear and tear can make them less effective.

Okay – who can repeat the 3 tips that I just gave you. Anyone?

*Wait for the students to respond. Praise a student who is able to repeat the tips correctly or repeat the tips one more time.*

**Purpose:** Raise students' awareness of other ways in which their teeth can be damaged.

#### Learning outcomes:

- A mouth guard can lessen the risk of a dental injury.
- Three tips can help a child or teen choose and wear the proper mouth guard.

**Estimated duration:** 5 minutes

**Module 4:** What have we learned? (*A review quiz*)

ENGAGE THEM: How much have you learned about keeping your mouth healthy? Let's see by taking a quiz that will test your "tooth awareness." This will help us remember the key lessons. Read every question and then circle the answer that you think is correct. Then we will go over this.

*Hand out a copy of **Sheet 5** to every student. Give students ample time to complete the brief quiz and then go over the answers to each question. (The correct answers to the quiz on Sheet 5 are below.) Welcome questions if any student seems confused about the correct answers. When you get to the answer on Question 3, ask students if any of them remembers one of the different names for "sugar."*

*Ask the students how many of them got at least 4 of the answers correct. Ask how many of them got at least 5 answers correct.*

ANSWERS:

1. C
2. B
3. False
4. C
5. A
6. B
7. A

**Purpose:** Review some of the key lessons that students have learned to ensure retention

**Estimated duration:**  
15 minutes

# Brush, brush, brush your teeth

*This song has the same melody as the song "Row, Row, Row Your Boat." The words are below.*



Brush, brush, brush your teeth, brush them every day.

Right, left, up, down, clean the plaque away.

Brush, brush, brush your teeth, brush them every day.

Front, back, take off the plaque, now we smile all day.

# Mark your progress



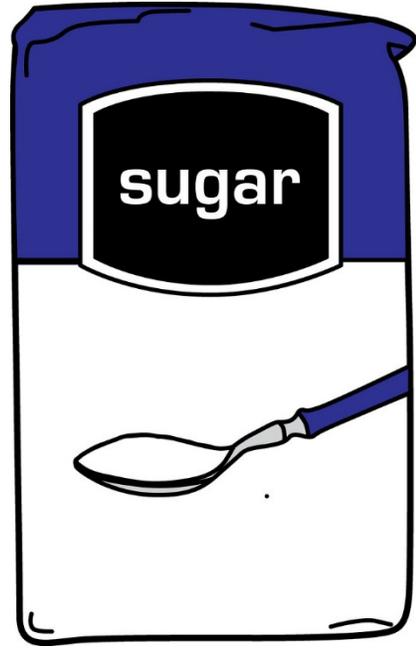
Each February is Children’s Dental Health Month! **Draw a star** in the box for each day that you brush and floss your teeth. The more stars, you more you are doing to keep your smile healthy.

FEBRUARY						
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

# Sugar has many names

Sugar is sneaky. There are many names for sugar. The different names make it easy for sugar to hide in a lot of foods. Here are some of the different names for sugar:

- Corn syrup
- High-fructose corn syrup
- Sucrose
- Dextrose
- Honey
- Cane sugar
- Brown sugar
- Turbinado sugar
- Molasses



Let's remember — a food or drink may have sugar in it, but the sugar may be called another name that is on this list.

# Three kinds of drinks

## Always drinks

- Water
- Plain white milk

## Never drinks

- Energy drinks

## Sometimes drinks

- Soda
- Sports drinks
- Sweetened/flavored milk
- Juice 'drinks' like Capri Sun, Sunny D, Tampico
- Yogurt 'drinks'
- Coconut waters
- Agua frescas
- Punch and Kool Aid



# Test your tooth awareness



*How much have you learned about keeping your mouth healthy?  
Circle the correct answer for each of the questions below.*

1. The germs that cause a cavity are mostly found in a sticky film that is on the surface of teeth. What is this sticky film is called?  
a) Honey      b) Toothpaste      c) Plaque      d) Dendelmist
2. How many times each day should we brush our teeth to keep them healthy?  
a) 1 time      b) 2 times      c) 3 times      d) 4 times
3. True or False: To know if a food or drink contains sugar, all you have to do is to see if the word “sugar” appears in the list of ingredients.  
a) True      b) False
4. The best toothpaste has a mineral that helps to strengthen teeth. What is this mineral called?  
a) Vitamin A      b) Grape juice      c) Fluoride      d) Salt
5. Stronger teeth are less likely to get \_\_\_\_\_.  
a) A cavity      b) A snack      c) Brushed      d) A crumb stuck between them
6. How often should a child get dental care from a dentist?  
a) 1 time each year      b) 2 times each year  
c) 3 times each year      d) Whenever one of their teeth hurts
7. If you have a mouth guard for sports, what can a dentist do to help you?  
a) The dentist can see if it fits properly  
b) The dentist can tell you if he likes the color  
c) The dentist can sell you a replacement for it  
d) The dentist can tell you stories about when they played a sport

## **Acknowledgements**

This curriculum for K-6 students in Merced County was developed after reviewing several pre-existing curricula or educational materials. With this in mind, we wish to recognize and thank the following organizations or institutions for the materials they produced that helped to inform or inspire the Merced County K-6 curriculum:

- Dental Health Education Resource Guide (California Dental Association)
- Smile Smarts Dental Health Curriculum (American Dental Association)
- SugarScience/Hidden in Plain Sight (University of California San Francisco)
- The Crest & Oral-B Dental Education Program (Dentalcare.com)
- Open Wide and Trek Inside (National Institute of Dental and Craniofacial Research)
- Colgate Oral Care Center ([www.colgate.com/en-us/oral-health](http://www.colgate.com/en-us/oral-health))
- Oral Health for Maryland's Kids (National Maternal and Child Oral Health Resource Center)