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# Adventures in the Molar System.

ORAL HEALTH EDUCATION PROGRAM For Grades K-1 Teacher's Guide



### Dear Educators,

Welcome to **Colgate Bright Smiles, Bright Futures (BSBF)**. You are embarking on a more than 30-year legacy that brings positive oral health messages to children across the world in classrooms just like yours. Colgate's focus is on the importance of courage and optimism throughout our daily lives. We are excited to take your students on an adventure where these messages are introduced and carried out via our program, The Adventures in the Molar System.

Each year, Colgate-Palmolive Company's award-winning program reaches over 100 million school children and their families from 80 countries and over 30 languages. To date, we've reached over 1 billion children and it's educators like you who have made it a success.

Bright Smiles, Bright Futures gives educators, children, and families the tools they need to create lifelong oral health habits. Most importantly, this optimisitc approach allows children to take control of their own oral health. Through this journey, BSBF empowers children to be lifelong "oral health heroes" equipping them with skills that can easily be integrated beyond just brushing and flossing.

Welcome to BSBF. Enjoy the journey to the Molar System!

Dr. Gillian Barclay BSBF Global Oral Health Initiative Colgate-Palmolive Company

This guide is designed along the principles of easy, attractive, and social behavior change for children in order to communicate key oral health messages in a creative manner. The program engages children in an active learning environment while also creating links with the child's home and family.

George Kitsaras, PhD, MSc, CPsychol

Adventures in the Molar System is an exciting space theme and an inspirational story. It emphasizes the importance of brushing with fluoride toothpaste at all ages with parental support once first tooth is in the mouth, which is an important oral health habit for children to develop from an early age.

Francisco Ramos-Gomez, D.D.S., M.S., M.P.H

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The new Bright Smiles, Bright Futures program is both imaginative and attention-getting. Children and their families will enjoy it—and learn from it.

"

Alice M. Horowitz, PhD

# **Adventures in the Molar System**

We are proud to introduce the newest Colgate Bright Smiles Bright Futures (BSBF) program where you and your students are in for an adventure like never before. Hold on to your toothbrushes you are about to embark on a journey to the Molar System as a part of an elite space force who defends the Molar System against the Duke of Decay while learning all about proper oral health.

This engaging, activity-based program is *easily integrated* into your *existing curriculum*, so you don't need to add a new unit of study to your busy day. The standards-based approach helps to make it easy to cover core learning objectives in all curricular areas, and its flexibility allows you to adapt it to your own classroom needs. Your students will love this galactic adventure! There are numerous additional activities that are embedded throughout the program as a means to enhance the program's engagement.

The program begins with key messaging and information surrounding courage and optimism. Each lesson builds upon the others as first the students explore the Molar System in the video, and then visit countries around the world in the storybook, Back from the Molar System: The Search for Toofus.

Now grab your toothbrushes...the journey is about to begin. But, first let's get acquainted with all the program components.

#### **Program Components**

The *easily-integrated materials* were developed with teachers and oral health experts from around the world. In addition to fitting into your curriculum, the developmentally appropriate components are designed to be optimistic and give the children courage to be oral health heroes in their own daily lives.



Video: Adventures in the Molar System Features Dr. Rabbit and Brushwell--two cartoon dentists who mentor the group of children from around the world as they help defend The Molar System from the evil Duke of Decay.



Storybook: Back from the Molar System: The Search for Toofus

The children all return to their home countries only to find someone is missing! Your students will join Wilder and the heroes as they search for Toofus.



**Two Sided Wall Chart** Features an engaging visual maze on one side and oral care "how tos" on the other.

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• Family Involvement/Back to Mission Control - We understand that families are an integral part of the BSBF message. You will find ideas on how to engage and involve parents and other family members with the topic of oral health throughout this guide. The program also includes a colorful parent take-home component.

• Extension Activities: Numerous activities (STEM, Movement, Video Links) are provided throughout this Guide.

# **Key Oral Health Messages**



Brush your teeth with fluoride toothpaste 2X day; after breakfast and before bedtime



Floss once a day to remove plaque in between teeth



Limit sugary snacks and drinks to reduce your risk for cavities



Visit your dentist regularly to help maintain good oral health

#### **Keep in Mind**



Use mouth rinse in between brushing



Change your toothbrush every 3 months



Turn off the water when brushing

#### **Standards Chart**

US Common Core State Standards	Kindergarten	First Grade	Mission
Reading Literature	With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.	Compare and contrast the adventures and experiences of characters in familiar stories.	Mission 3 Mission 4 Mission 5
Writing	Use a combination of drawing, dictating, and writing in which they name what they are writing about and supply some information about the topic.	Write informative texts in which they name a topic, supply facts about the topic, and provide a sense of closure.	Mission 1 Mission 3
Speaking And Listening	Confirm understanding of a text read aloud, information presented orally, or through other media by asking and answering questions about key details and requesting clarification if not understood.	Ask and answer questions about key details in a text read aloud or information presented orally or through other media.	Mission 2 Mission 3 Mission 4 Mission 5 Mission 6
US Common Core State Standards	Kindergarten & First Grade	Mission	
CASEL Competencies Self Management Responsible Decision Making	Self-Management: The ability to successfully regulate one's emotions, thoughts, and behaviors in different situations (focus on goal setting)	Responsible Decision Making: The ability to make constructive choices about personal behavior and social interactions based on ethical standards, safety concerns and social norms.	

# **Mission 1** Three. Two. One. Blast Off!

Teeth





### Lesson at a Glance

Blast off and embark on a journey toward becoming oral health heroes.



# earning Goal

Students will recognize the importance of good oral health.



#### **Prepare the Lesson**

- Gather papers, crayons and colored pencils
- Create K-W-L chart
- Create graphic organizer
- Copy Bright Smiles, Bright Futures (BSBF) journal for each student
- Bring class set of small mirrors
- (1 per child) or use a larger handheld mirror to pass around to students



20 Minutes



# **Back to Mission Control**

Spark interest at home: Encourage the students to go home and sing the SMILE song to their families. Have students share with their families how they are going to have a Bright Smile.

### **Ready for Lift-Off**

Today we focus on goal setting. We all have different experiences with the dentist, dental habits and how to take care of our teeth. *≈See teacher tip below* 

#### What makes you SMILE?

Have students smile at each other: or use small hand held mirrors. have students look at themselves in the mirrors and describe what they see when they smile.

#### What do we notice when someone smiles? Their teeth.

Using your chart paper/graphic organizer brainstorm with students a list of ideas how our teeth help us. As a whole group lesson add the phrase "how do teeth help us" to the center circle, add the key words/ phrases students provide about teeth to the outer circle. Write key words (smile, chew, talk, make sounds..etc).



To the tune of "If You're Happy and You Know It"

If you're happy and you know it give a smile (2X) If your're happy and you know it then your face is going to show it If you're happy and you know it give a smile. When my teeth are clean I know it 'cause I SMILE' (2X) When my teeth are clean I know it - I'm not afraid to show it When my teeth are clean I know it 'cause I SMILE'

#### Use the K-W-L chart about "taking care of your teeth"

• Ask students what they know about taking care of their teeth and add responses to the "Know" column on the K-W-L chart.

• Ask students what they'd like to learn about taking care of their teeth and add responses to the "Want to know" column on the K-W-L chart. (You will complete the "What you Learned" section later.)

Hand out Bright Smiles Journal and help students begin their Bright Smiles journal. Answer writing prompt:

• How can you take care of your teeth?

Encourage students to write sentences, words, or draw pictures depending on the student's academic level.



Teacher Tip: Today, you want to honor where each child is on this journey and allow for open discussion about oral health and visiting the dentist.

How do I take care of my teeth?	Bright Smiles Journal Name:
Draw a picture of plaque	*
Draw a picture of brushing your teeth	Visit to the dental office
© 2020 Colgate-Palmolive Company. All Rights Reserved. A Global Oral Health Initiative.	Smart Snacks

# **Mission 2** Answer the Call





### Lesson at a Glance

The class will watch the "Adventures in the Molar System" video.



# Learning Goal

The students will watch for how the kids in the video demonstrate courage and teamwork as they answer the call to help defend Dr. Rabbit's Lab from the evil Duke of Decay.



### Prepare the Lesson

Watch the video: Adventures in the Molar System. Link: https://www.colgate.
com/en-us/bsbf/adventures
Post the wall chart (Side 1, How to Brush) Keep the wall chart up throughout the remaining missions.
Gather Crayons, Colored Pencils, Glue, and Wooden popsicle/craft sticks

• Copy of the Oral Health Heroes

# Estimated Time

Spread out over two sessions Part 1: 30-35 minutes

- 15 min showing and discussing video
  15-20 min coloring and assembling
- the oral health hero puppets Part 2: 30 minutes

• 20 min reviewing oral health steps and acting out learning from video

# Back to Mission Control

Have the students take home the Heroes, introduce them to their families, and what they learned from each character.

### **Ready for Lift-Off**

#### Part 1 – Video and puppets Prior to showing the video

Briefly discuss the Solar System and how the Sun and all the objects such as planets, asteroids and comets orbit around it. In the video the students will visit the "Molar System"; help the students make the connection to the "Molar System" by defining the word **molar** and help them to identify where their molars are located. *See teacher tip below* 

#### Show the video

• Remind the students to focus on the characters in the video and how they "answer the call".

#### After showing the video

- Discuss all the characters and ways they answered the call
- Ask students what they learned in the video about how you take care of your teeth. Add this to the "Learned" section of the K-W-L chart created on day 1.
- Give each student a "Hero's page" and have them color, cut out and create popsicle puppets

#### Part 2 – Puppets used to help review

- Review with students the K-W-L chart and what they learned from the video
- Ask students if they are ready to *Answer the Call* to be Oral Health Heroes.

Review with students how the characters "answered the call." With the puppets created previously, call out the action displayed by each Hero. Have students identify the correct hero by holding up their puppet that matches the action given by you (e.g., "Brush your teeth twice a day" students will be able to identify the correct character, Dev)

- (1) Displayed courage to help Dr. Rabbit & Brushwell (All Heroes)
- (2) Brushed teeth 2x a day after breakfast and before bed (Dev)
- (3) Limited sugary snacks to reduce the risk of cavities (Paolo)
- (4) Flossed once a day to remove plaque (Ariyo and Wilder)
- (5) Turned the water off while brushing (Dev)



**Teacher Tip:** Most children have a full set of 20 baby teeth by the time they are 3 years old. Molars are the two back teeth on the top and bottom of each side of your mouth. They're used for chewing food.

# **Oral Health Heroes**





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# **Mission 3** Save the Molar System





### Lesson at a Glance

Students will demonstrate optimism as they become Oral Health Heroes and set out to save the Molar System while fighting off "plaque".



• Understand how plaque forms and why it's harmful to your teeth

• Learn proper brushing and flossing techniques



### Prepare the Lesson

• Review brushing and flossing videos found on the Colgate website and have them queued up to show to students.

- How to Brush link:
- Colgate.com/BSBF/HowToBrush
- How to Floss link:

Colgate.com/BSBF/HowToFloss



35 Minutes



Share video links on brushing and flossing with parents/families using the links above. Remind families that adults should help with flossing and brushing until kids are at least 8 years old.

### **Ready for Lift-Off**

Help students understand what plaque is and how it is relentless and continues to come back. > See teacher tip below

**Confidence Building:** Review the steps the Heroes took and how they displayed confidence when they answered the call to defeat the evil Duke of Decay.

- Brush with fluoride toothpaste 2x a day after breakfast & before bedtime
- Limit sugary snacks to reduce the risk of cavities
- Floss once a day to remove plaque between teeth

**Brushing:** Dev is the brushing hero. Join Wilder and Dev and put the new skills of brushing to work. Help them show proper brushing by using the How to Brush link. Review the following important points about proper tooth brushing.

- Use a pea sized amount of fluoride toothpaste
- Place brush at a slanted (45 degree) angle against the gumline
- Brush all surfaces of each tooth inside/outside and don't forget your tongue

**Flossing:** Dr. Rabbit showed the Heroes how to floss. Ariyo used her new skill of flossing during the battle scene. Review the following important points about proper flossing.

- Make a "C" shape around the tooth, move the floss up and down between each tooth to remove plaque and have an adult help.
- Ask students to draw a picture/write words in their journal depicting brushing and/or flossing steps they learned
- Refer back to the K-W-L chart and add what they learned regarding proper brushing and flossing to the "Learned portion."
  - **Teacher Tip:** Plaque is bacteria that is always in our mouths. When you eat sugar, it reacts with the plaque to create a sticky, colorless film on your teeth. It makes teeth feel "fuzzy." If you don't brush the plaque away twice a day, it can lead to tooth decay (cavities).

• Movement Option: Teach students how to floss on an empty, upside-down egg carton. Or, ask students to line up one arm's length away from each other. Have them hold hands and raise their arms over their heads. Then, one at a time, let them act as "floss" by walking between each set of students.

# **Adventures in the Molar System:** Scene-by-Scene Guide

Scene	Scene Summary	Teachable Moments
Wilder's Room (0:05)	Wilder is playing games just like many of your students do. Suddenly she gets a message from Dr. Rabbit. She's hesitant to take action—but her stuffed "friends" help her feel confident to "Answer the Call".	<ul> <li>What is Wilder's initial reaction to Dr. Rabbit's call?</li> <li>How do Wilder's "friends" help "answer the call"</li> <li>Ask your students how they can support their friends.</li> </ul>
Arrival in the Molar System (1:48)	Dr Rabbit has called upon children from around the world to help defeat the Duke of Decay. Wilder is joined by Dev from India, Ariyo from Nigeria, and Paolo from Brazil. Dr. Rabbit, Brushwell, and Squish (from Mars) greet them at Dr. Rabbit's Lab.	<ul> <li>Ask your students how they would feel if they arrived in the Molar System.</li> <li>Help students feel comfortable with the dentist as they get to know Dr. Rabbit and Brushwell.</li> <li>To learn more about each hero, see the "Join the Heroes" URL: Colgate.com/BSBF/Heros</li> </ul>
Duke of Decay (3:04)	The Duke of Decay wreaks havoc on the Molar System. You will meet him and his sticky-sweet minions. They are made out of sugar— all the way to Decay's " frosting" hair. But beware	<ul> <li>The Duke is sitting on a tooth throne. Ask your students what they notice about the tooth throne. (cracked and decaying)</li> <li>Remind students that the Duke and his sugary treats may look tempting, but they can lead to tooth decay.</li> <li>Help students understand how sugar can harm your teeth and overall health.</li> </ul>
Introduction to plaque (2:40-2:41)	Wilder is beginning to learn just how bad plaque is. A representation of plaque lives in the giant test tube; Brushwell and Dr. Rabbit are explaining to Wilder and the other kids how it lives in your mouth.	<ul> <li>The giant "test tube" shows how plaque forms—and keeps coming back!</li> <li>This is why it's important to brush your teeth with fluoride toothpaste twice a day, every day!</li> </ul>

Continued on the next page...

# **Adventures in the Molar System:** Scene-by-Scene Guide Continued...

Scene	Scene Summary	Teachable Moments
Dr. Brushwell's lesson on tooth brushing (4:29)	Brushwell is teaching the heroes all about brushing their teeth with fluoride toothpaste. Dev also learns the importance of taking care of his equipment (changing his toothbrush regularly).	<ul> <li>Why is important to change your toothbrush every 3 months? (bristles become "splayed" and don't clean teeth well)</li> <li>Remind students of the three tips to consider when brushing. (pea-sized amount of toothpaste, 45-degree angle, and turning off the water)</li> </ul>
Dr. Rabbit's flossing (5:09)	Dr. Rabbit is demonstrating how to floss. You see Wilder and the other children practicing flossing.	• Ask students about the three important steps they should consider when flossing. (C- shape, floss to the gumline, have an adult help if you are younger than 8)
Answering the Call (beginning at 5:41)	The children have left the "laboratory" and are battling the Duke of Decay and his Minions to protect the Molar System! The team works together: • Wilder uses floss to capture the sugary minions • Paolo plays "whack-a-mole" with sugary gummy candy • Ariyo and Dev use their toothbrush "phasers"	<ul> <li>Ask the students how working as a team made a difference in the battle.</li> <li>Ask students to recall a time when they had to work as a team. What was the result?</li> <li>How did the use of the toothbrush phasers help to defeat Decay?</li> </ul>
Emblem of Courage (6:48)	Dr. Rabbit awards the "Emblem of Courage" to all the children. They have defeated Decay—this time. But Dr. Rabbit reminds them to be ready, because "decay is always lurking waiting to return."	Strive for a healthy smile! • How did the children display courage? • Why is doing the right thing important? (be courageous and answer the call)

#### Back on Earth:

At the end of the video, Wilder visits the dental office and discovers that Brushwell is her dentist. The adventure was real!

# **Mission 4** Back from the Molar System





### Lesson at a Glance

Join Wilder as she demonstrates courage to travel the world and answer the call to help find Toofus.



# Learning Goal

- Recall proper oral health strategiesSee proper brushing and flossing
- techniques in action
- Experience different countries



#### Prepare the Lesson

• Storybook: Back from the Molar System: The Search for Toofus

- Sticky Notes
- Chart Paper
- K-W-L Chart



30 mins X2



#### **Back to Mission Control**

Have students share the statement written on the sticky note about how they are going to *answer the call*.

### **Ready for Lift-Off**

Play a game of "Bright Smile Says" aka Simon Says (these actions should be practiced prior to playing the game)

#### A Bright Smile says...

- "I brushed my teeth twice a day with fluoride toothepaste" (kids act out brushing)
- "I floss to get rid of plaque" (kids act out flossing their teeth)
- "I ate a sugary snack/or name specific sugary snack from your graphic organizer" (kids freeze)
- "I use mouth rinse after brushing"
- (kids puff cheeks act out gargling)
- "I eat treats after I brush my teeth at bedtime" (kids freeze)
- "I visit my dentist regularly" (kids act out walking to/waving at dentist)

**Close Reading Strategy** (close reading is a strategy where teachers read a storybook multiple times for various purposes)

**1st Read of the storybook** . Read the storybook: discuss with students some of the places around the world that Wilder and Chompers visited:

- India 🔹 Brazil
- Nigeria Dental Office

(hold onto your smiles we will visit the dental office on our last mission)

2nd read of the storybook. Focus on oral health strategies:

• India: As a class, reread pages 4-5.

What oral health lesson is Dev teaching his teammates? Use the sticky notes to flag the skill (e.g., toothbrush angles at a 45 degree angle, arrow pointing the words brush twice with fluoride toothepaste a day after breakfast and before bedtime)

• Nigeria: Use evidence from pages 6-7.

What is Ariyo teaching us about oral health? Use the sticky notes to flag the skill (e.g., C shape, work with an adult, removes plaque, etc)

- **Brazil**: Paulo is teaching his friends about "smart snacks." What clues do the pictures give us about making smart snack choices?
- Have the students discuss why they think Toofus goes to the dental office next. This is a great time to review the importance of visiting the dentist regularly.

# **Mission 5** Save the Molar System





## Lesson at a Glance

Student's optimism will shine as they continue to learn how to fight off "plaque". They learn the difference between sugary and "smart snacks" and follow the Smart Snacks Maze on the path to a Bright Smile.



- Review Oral Health Messages
- Identify how to make smart snack choices

#### Prepare the Lesson

- Review Smart Snack Options
- Copy and print maze reproducible for each student
- Turn the wall chart to side 2 "The Smart Snack Maze"
- Graphic organizer to chart smart snacks and sugary snacks and drinks



20 minutes



Have students take home the maze to share with family what they have learned about how to be an oral health hero.

### **Ready for Lift-Off**

#### Smart Snack Savvy

Students work together to name/recall the sugary snacks displayed in the video. Utilize the graphic organizer and have students brainstorm snacks and drinks and identify which circle the snack and/or drink would fall into.

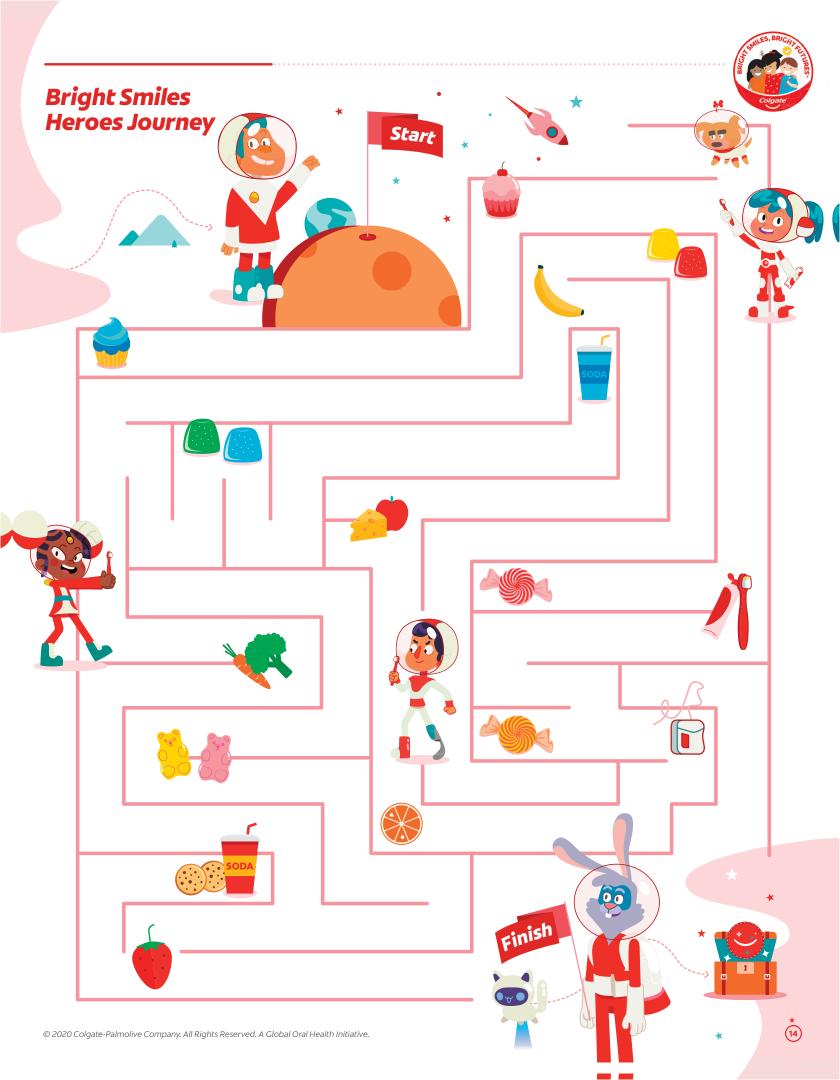
#### Smart Snack Maze

- Use the Smart Start Maze poster and model the path to fight plaque (toothbrush, floss, smart snack options) and the "dead ends" that can cause decay (sugary snacks and drinks)
- Refer back to the K-W-L chart and add what they learned regarding how to make smart snack choices to the "Learned portion"
- Hand out the maze reproducible and have students complete the maze independently/collaboratively to reinforce learning about "smart snack options"

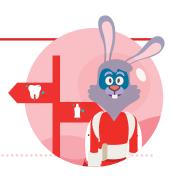


#### Teacher Tip:

- If you have access to a laminator, laminate the poster and allow students to use dry erase markers to complete the maze during a small group.
- Create a maze on your floor using pictures of the dental tools, smart snack options and sugary snack options. Encourage students to move through the maze and problem solve how to reach the Bright Smile.
- **Stem Connection:** Create a classroom experiment soaking one hard boiled egg (teeth) in water and the other in a sugary drink. Discuss how different types of drinks affect your teeth (use various sugary drinks appropriate to your community). This experiment can last a week and students can record/monitor the changes to the eggs over time.



# **Mission 6** Toofus Visits the Dental Office





### Lesson at a Glance

Discover how Toofus exhibits courage by travelling the world, and optimism as she heads back to the Molar System to continue spreading her knowledge on how to care for her teeth.



Students will learn that they should visit the dentist twice a year, and become familiar with what is in a dental office.



#### Prepare the Lesson

- Storybook: Back from the Molar System: The Search for Toofus Link: Colgate.com/BSBF/MolarSystem-Storybook
- Review the website: What to expect at a dental visit
- Link: Colgate.com/BSBF/WhatToExpect
- Print a copy of the Emblem of Courage for each student and fill in their name and the teacher's signature



30 minutes



Send home Emblem of Courage with students as a celebration for their Heroic learning.

#### **Ready for Lift-Off**

#### **Close Reading Strategy**

Reread page 10-11 with a focus on what the students can expect while visiting the dentist.

Students are going to answer the call by identifying the items that they see in the dental office.

- Modern dental chair that moves up and down
- Dental mirror
- Dr. Rabbit wearing mask and goggles
- Dr. Rabbit and Brushwell photos on the wall
- X-ray machine
- Toothbrush, floss, dental rinse

#### **Oral Health Pledge** (sung to the tune Johny Johny)

Students, Students. -- Yes, Teacher. -- How can you show me you answer the call? Brush twice a day after breakfast and before bed--- that's not all

Students, Students. -- Yes, Teacher. -- How can you show me you answer the call? Limit sugary snacks to reduce the risk of cavities--that's not all

Students, Students. -- Yes, Teacher. -- How can you show me you answer the call? Floss once a day to remove plaque between teeth---that's not all

Students, Students. -- Yes, Teacher. -- How can you show me you answer the call? Visit the dentist regularly---that's not all

Students, Students. -- Yes, Teacher. -- How can you show me you answer the call? Change my toothbrush every three months--that's not all

Students, Students. -- Yes, Teacher. -- How can you show me you answer the call? Use mouth rinse after brushing--that's not all

Students, Students. -- Yes, Teacher. -- How can you show me you answer the call? Turn off the water when Brushing--that's not all!

Students, Students. -- Yes, Teacher. -- How can you show me you answer the call? Replace your toothbrush every three months

YEP THAT's ALL!!

#### **Celebration Time!**

You and your students have really answered the call! Congratulations students let's all celebrate! You have learned proper oral health strategies, you've visited the Molar System and now have taken an oral health trip around the world.

Let's all celebrate the courage you have displayed and award each of you an "Emblem of Courage" (certificate found below).

# **This Emblem of Courage** is proudly presented to

for visiting the Molar System and becoming a Oral Health Hero.

Date



Signature (Awarde)