



Adventures in the Molar System



ORAL HEALTH EDUCATION PROGRAM
Teacher's Guide for Primary School Children



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 optimistic 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!

Marsha Butler, DDS
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 the 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

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.



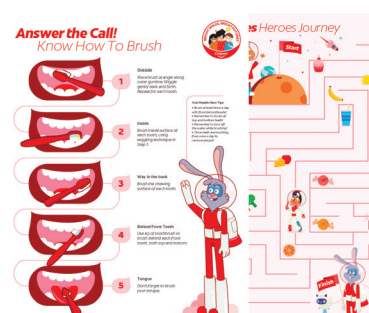
Video: Adventures in the Molar System

Features Dr. Rabbit and Brushwell—two cartoon dental professionals 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 colourful 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 a 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 dental professional regularly to help maintain good oral health

Keep in Mind



Use mouth rinse in between brushing (for kids aged 6+)



Change your toothbrush every 3 months



Turn off the tap when brushing

Standards Chart

Key Learning Area	Mission	Assessment for Learning	Notes
Reading	Mission 3 Mission 4 Mission 5		
Writing	Mission 1 Mission 3		
Speaking and listening	Mission 2 Mission 3 Mission 4 Mission 5 Mission 6		
Health and Physical Education	Mission 1 Mission 5		
Community outreach and life skills	Mission 2 Mission 3		
Science	Mission 3		
Geography	Mission 4 Mission 6		

Mission 1

Three. Two. One. Blast Off!



Lesson at a Glance

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



Learning Goal

Students will recognise the importance of good oral health.



Prepare the Lesson

- Gather papers, crayons and coloured pencils
- Create K-W-L chart
- Create graphic organiser
- 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

Teeth



Estimated Time

30 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, and 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 organiser, brainstorm with students ideas about 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).

Smile Song

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 you’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 honour where each child is on this journey and allow for open discussion about oral health and visiting the dentist.

Name: _____

Bright Smiles Journal



**How do I take care of
my teeth?**

Draw a picture of plaque

**Draw a picture of
brushing your teeth**

**Draw a picture of
flossing your teeth**

Visit to the dental clinic

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.colgatebsbf.com.au/dvd_video
- Post the wall chart (Side 1, *How to Brush*) Keep the wall chart up throughout the remaining missions.
- Gather Crayons, Coloured 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 colouring 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, and ask students if there is anything they would like to add to the ‘W’ section of the chart.
- Give each student a “Hero’s page” and have them colour, 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.

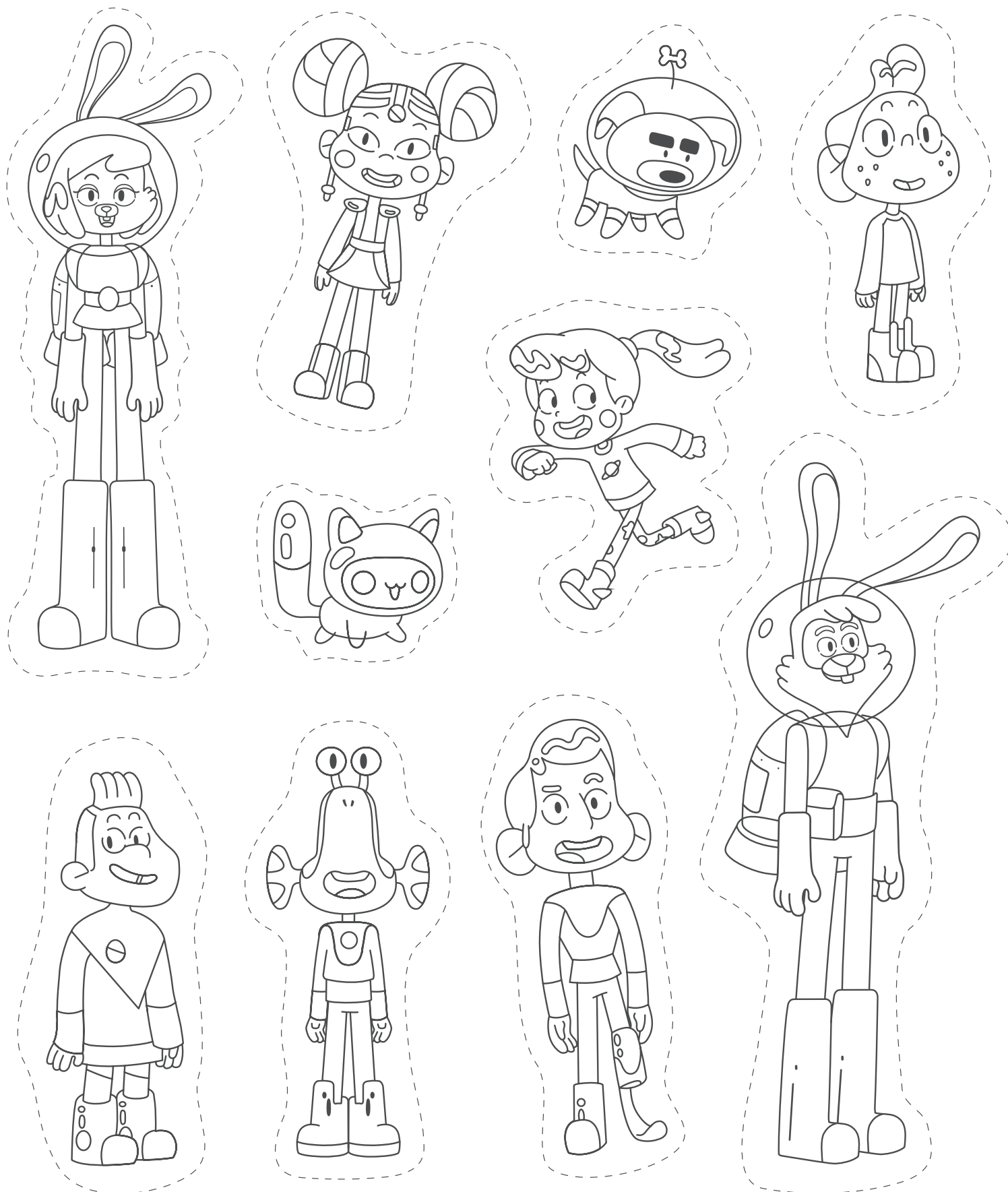
Review with students how the characters “answered the call.” With the puppets created previously, call out the action displayed by each Hero. Have students identify the correct hero by holding up their puppet that matches the action given by you (e.g., “Brush your teeth twice a day” students will be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



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”.



Learning Goal

- 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](https://www.colgate.com/BSBF/HowToBrush)
- How to Floss link:
[Colgate.com/BSBF/HowToFloss](https://www.colgate.com/BSBF/HowToFloss)



Estimated Time

50 Minutes



Back to Mission Control

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 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 made from bacteria that are always in our mouths. They form a sticky colourless film on our teeth which makes teeth feel “fuzzy”. When you eat sugar the plaque bacteria process this to produce acid which can dissolve tooth enamel. 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 style="list-style-type: none"> • What is Wilder's initial reaction to Dr. Rabbit's call? • How do Wilder's “friends” help “answer the call”? • Ask your students how they can support their friends.
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 style="list-style-type: none"> • Ask your students how they would feel if they arrived in the Molar System. • Help students feel comfortable with the dentist as they get to know Dr. Rabbit and Brushwell. • To learn more about each hero, see the “Join the Heroes” URL: Colgate.com/BSBF/Heroes
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 style="list-style-type: none"> • The Duke is sitting on a tooth throne. Ask your students what they notice about the tooth throne. (cracked and decaying) • Remind students that the Duke and his sugary treats may look tempting, but they can lead to tooth decay. • Help students understand how sugar can harm your teeth and overall health.
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 style="list-style-type: none"> • The giant “test tube” shows how plaque forms – and keeps coming back! • This is why it's important to brush your teeth with fluoride toothpaste twice a day, every day!

Continued on the next page...

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

Scene	Scene Summary	Teachable Moments
Brushwell's less on 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 style="list-style-type: none"> • Why is important to change your toothbrush every 3 months? (bristles become “worn” and don’t clean teeth well) • Remind students of the three tips to consider when brushing. (use fluoride toothpaste, 45-degree angle, and turning off the tap)
Dr. Rabbit's flossing (5:09) 	Dr. Rabbit is demonstrating how to floss. You see Wilder and the other children practicing flossing.	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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 style="list-style-type: none"> • Ask the students how working as a team made a difference in the battle. • Ask students to recall a time when they had to work as a team. What was the result? • How did the use of the toothbrush phasers help to defeat Decay?
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! <ul style="list-style-type: none"> • 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 clinic and discovers that Brushwell is her dental professional. 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 strategies
- See 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



Estimated Time

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 toothpaste”
(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 organiser” (kids freeze)
- “I use mouth rinse after brushing”
(kids puff cheeks act out gargling) *for kids aged 6+
- “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 clinic

(hold onto your smiles we will visit the dental clinic 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 to the words brush with fluoride toothpaste 2x 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:** Paolo 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 clinic 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.



Learning Goal

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



Prepare the Lesson

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



Estimated Time

20 minutes



Back to Mission Control

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. Utilise the graphic organiser and have students brainstorm snacks and drinks and identify which circle the snack and/or drink would fall into.

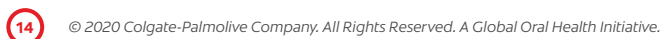
Smart Snack Maze

- Use the Smart Snack 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 activity and have students complete the maze independently/collaboratively to reinforce learning about "smart snack options"



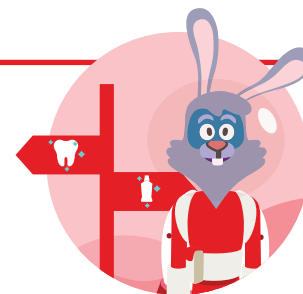
Teacher Tip:

- If you have access to a laminator, laminate the poster and allow students to use dry erase markers to complete the maze during small group work.
- 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 Clinic



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.



Learning Goal

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



Prepare the Lesson

- Storybook: Back from the Molar System: The Search for Toofus
- Review the website: The Dentist Visit And What To Expect
Page available at colgate.com.au
- Print a copy of the Emblem of Courage for each student and fill in their name and the teacher's signature



Estimated Time

30 minutes



Back to Mission Control

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 clinic.

- 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 or Twinkle Twinkle Little Star)

*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 tap 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!!

*mouth rinse recommended for kids aged 6+

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.

Looking for ways to celebrate? Why not have students dress up as their favourite character; have a smart shared snack or invite your local dental professional to share their insights with the class.

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 (Teacher)