

The Dr. Samuel D. Harris
National
Museum of
Dentistry

HEALTHY MOUTH, HEALTHY BODY SELF-GUIDED TOUR & ACTIVITIES

**Discover the Power
of a Healthy Smile!**



Name _____

GRADE LEVEL: 3-5
TEACHER PACKET

During this visit to the museum, you will explore the following stations in hopes of sparking discussions and completing activities related to the theme “Healthy Mouth, Healthy Body.”

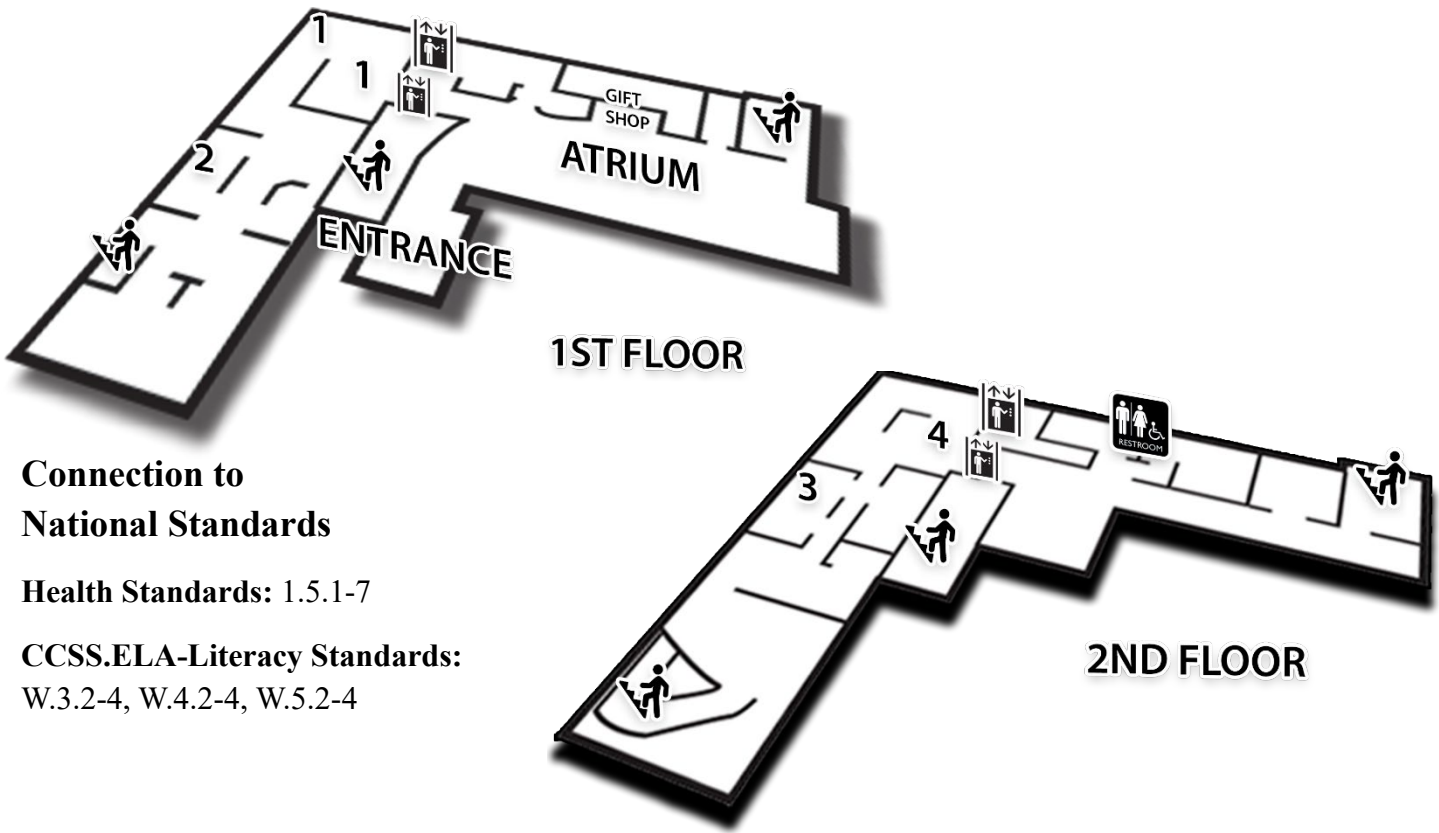
Stations

Check (✓) when complete

- 1. Telling Amazing Stories About Our Mouths! (1st Floor)
- 2. Rhyming with Catchy Jingles (1st Floor)
- 3. Write a Letter Like George Washington (2nd Floor).....
- 4. Mouthwatering Recipes (2nd Floor).....

Optional activity if time allows:

- 5. Scavenger Hunt: Hunt for the Described Objects (1st and 2nd Floor)



Connection to National Standards

Health Standards: 1.5.1-7

CCSS.ELA-Literacy Standards:
W.3.2-4, W.4.2-4, W.5.2-4

STATION 1 (1st Floor) | Telling Amazing Stories About Our Mouths! Discussion: 10 mins

In this area, we will learn about the amazing things we can do with our mouths by starting with our favorite circus performer, Penny “Iron Jaw” Wilson and then watching a video in the Hollywood Smiles Theater.

*Share the information in the wavy box below with your group, then ask the discussion questions that follow. Answers to discussion questions will be **bold**.*

Our mouths contain the strongest parts of our body that allow us to do amazing acts.

We use our teeth, tongues, lips, and jaw muscles to perform amazing acts every single day.

Some people use their mouths to do incredible tricks, and some people rely on their mouths to accomplish tasks many of us do with our hands.

Read the short story about Penny “Iron Jaw” Wilson on the next page and then ask the **“Questions to Begin the Discussion”** below.

Questions to Begin the Discussion

What kind of actions can we do with our mouth? (**Eat, Talk, Sing, Breathe, Whistle, and SMILE!**)

Should we do what Penny Wilson is doing? (**Only as an adult and with your dentist’s OK!**)

What can we do to make sure our teeth stay healthy so we can perform amazing acts our entire lives? (**Brush our teeth, floss, use mouthwash, and eat healthy food.**)

Next, move to the Hollywood Smiles Theater to watch *Fabulous Feats* (Video #7) to see examples of how people use their teeth in unexpected ways!

Then ask the **“Questions to Dive a Little Deeper”** below.

Questions to Dive a Little Deeper

Can we still do these amazing acts if we lose our teeth? Why not? (**Open ended**)

What is the strongest muscle in our body? (**The tongue!**)

What is the hardest substance in our body? (**The enamel on our teeth!**)

Now that you know some amazing feats people can do with their mouths, you are going to write your own story about an amazing feat you do or wish you could do with your mouth.

Example Amazing Feats: Eating, Talking, Singing, Smiling, Drawing, or Performing Stunts.

Penny and Her Amazing “Iron Jaw” Act

Penny Wilson was a circus aerialist, or someone who did acrobatic stunts hanging high above the ground.

One of her favorite stunts was the iron jaw act, where she would bite down on a leather shoe strap attached to a hook and wire, and be raised in the air by her mouth to do dances and spins.

Penny had to train her jaw muscles and keep her teeth very healthy in order to hold her own body weight and do these amazing things.

Because of her special skill, she ended up in the National Museum of Dentistry!

Title

Choose a title that hints to what your story is about!

Beginning: Character Introduction

Introduce the character (you!).

Middle: Describe the Amazing Mouth Feat

Describe what your amazing mouth feat is and how you are able to do it.

End: Share Something Special

Share something special that happened or you wish happened because of your amazing feat.

Begin by having students look at the items on display that have been used to clean mouths throughout history while asking the “Questions to Begin the Discussion.” Have students find examples of the answers written in **bold**.

Questions to Begin the Discussion

What can we use...

...to clean the surfaces of our teeth?

(Toothbrushes, toothpaste, mouthwash)

... to clean in between our teeth? **(Floss, toothpicks, mouthwash)**

... to clean our tongue? **(Tongue scrapers, toothbrushes, mouthwash)**

Ask the first question below before sharing A Short History of the Toothbrush and asking the remaining questions.

Questions to Dive a Little Deeper

What do you think people used to clean their teeth before the modern toothbrush was invented? **(Miswak or chew stick – Look behind the Tooth Jukebox’s teeth for examples to pass around.)**

Why do you think there are so many cartoon toothbrushes? **(Open ended)**

How often should we replace our toothbrushes? **(Every 3 months)**

How many toothbrushes do you think you’ll have in your entire life? **(Avg. life span = 78 years(936 months) $936/3 = 312$)**

What do you think toothbrushes of the future will be made from? **(Open ended)**

A Short History of the Toothbrush

The first type of toothbrush was actually a stick and is still used today by different cultures around the world!

The miswak or chew stick is a twig from a really good smelling tree that cleans your teeth by chewing on the end until it becomes frayed, and then you can rub the bristles over your teeth and gums.

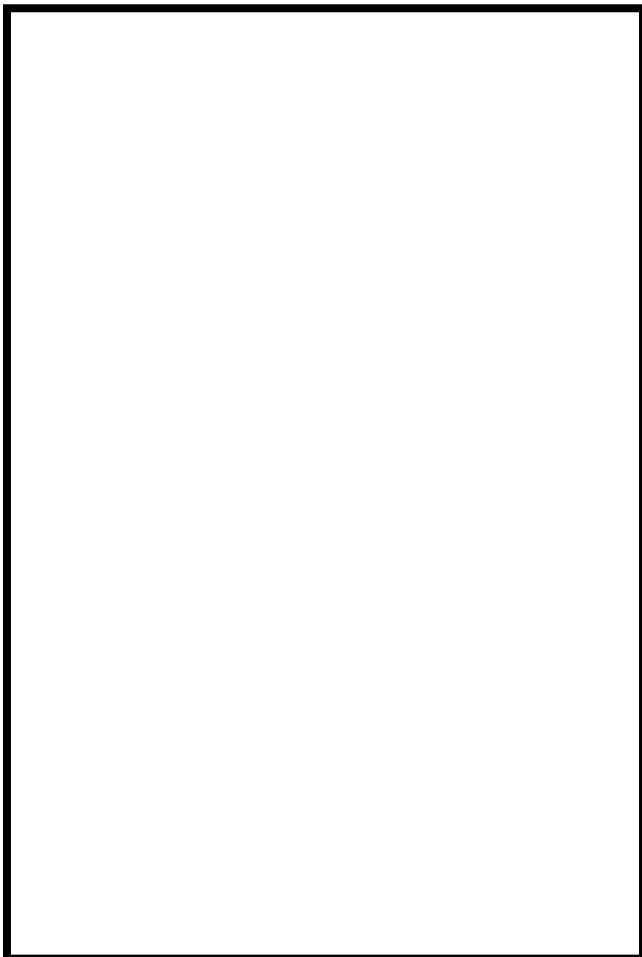
The next type of toothbrush to exist was the animal bone and animal hair toothbrush, and it was very expensive because it was handmade! It looks just like a toothbrush we use today. The handle was carved from leg bones, and the bristles were stiff hair from animals like the Russian boar. Most families would share one toothbrush because they were so expensive.

Less than 100 years ago, the plastic toothbrush we know today was invented. This allowed most people to own a toothbrush because they were cheaper and mass-produced.

But, because **we are supposed to replace our toothbrushes every 3 months**, over 1 billion toothbrushes in the United States end up in the landfill every year and will stay there for 500+ years before they decompose or break down.

Touch the screen on the Tooth Jukebox to watch commercials for the following products: Ipana Toothpaste, Reach Toothbrush, and Johnson & Johnson Dental Floss.

Have students work in pairs to design a new toothpaste, mouthwash, floss, or toothbrush in the box, and then create a short (15-30 second) social media ad for the product that includes a rhyming jingle and dance.



Create a rhyming couplet for your jingle, or two sentences that end in words that rhyme.

Examples:

Brush your teeth with Dr. Harris's Marvelous
Toothpaste twice a day!

And your mouth will yell, "YAY!"

Want your smile to light up a room?

Use our new car toothbrush, it goes vroom!

Name your product: _____

Write your jingle below:

After everyone has created their jingle and dance, have some volunteers share their new product and the ad they created if time allows.

In this area, you'll learn about the tooth troubles of the United States' first president, George Washington, and how he communicated with his favorite dentist, John Greenwood.

*Share the information in the wavy block with your group, then ask the discussion questions that follow. Answers to discussion questions will be written in **bold**.*

George Washington tried to be a good dental patient and always communicated with his dentist John Greenwood.

However, he contracted an illness during the French & Indian War, and the medicine he took to help cure it had a side effect that caused him to lose his teeth. By the time he became president, he only had 1 tooth left.

Whenever you lose your adult teeth, you don't grow anymore. Some people, like Washington, get dentures made to have fake teeth back in their mouth.

Washington had multiple dentures made by Greenwood that kept needing adjusted and fixed to fit in his mouth.

At the museum, we have one of the dentures that was actually in Washington's mouth! Look for the denture that matches the image below.



Since Washington lived in Philadelphia and Virginia, and Greenwood lived in New York, they had to communicate by letter to fix Washington's dentures and deal with any tooth troubles Washington had.

Look for a copy of an actual letter from Washington to Greenwood on the windowsill to share and read.

Questions to Begin the Discussion

What do you think George Washington's denture that the museum owns is made of? **(It's not wood, it's ivory! Ivory is teeth that grow outside of the mouth, like the tusks of an elephant or walrus, and the "horn" on a narwhal that is actually a tooth.)**

Would you want to wear George Washington's dentures? Do they look comfortable? **(Open ended)**

Questions to Dive a Little Deeper

How do you think George Washington felt losing his teeth? **(Open ended)**

What kinds of activities might be harder to do without your teeth? **(Open ended)**

How would you feel if the only way you talked to the dentist was by letter? **(Open ended but think of how long it might take to get a response.)**

Now that you have learned a little more about George Washington and how he wrote letters to his favorite dentist, John Greenwood, you are going to write your own letter and mail it to either George Washington, John Greenwood, or the Tooth Fairy.

Use the addresses below as the “mail to” address and the address of your school as the “return address” for the envelope. Find the sample envelopes on the windowsill to share as examples.

Then write a letter on the following page by choosing one of the topics below.

Addresses for:

George Washington
National Museum of Dentistry, 2nd Floor
31 S. Greene St.,
Baltimore, MD 21201

John Greenwood
National Museum of Dentistry, Basement
31 S. Greene St.,
Baltimore, MD 21201

The Tooth Fairy
National Museum of Dentistry, Roof
31 S. Greene St.,
Baltimore, MD 21201

Topics to write about in the letter:

- Share something you learned from your visit to the National Museum of Dentistry.
- Share the coolest thing you saw at the National Museum of Dentistry.
- Share what you like about smiling.
- Share how and when you lost your first tooth.

*In this area, you'll gather around the "Spit Tube" to learn about saliva and how important it is to your mouth and your body. Share the information in the wavy block and then ask the discussion questions that follow. Answers to discussion questions will be written in **bold**.*

Saliva, or spit, plays an incredibly important role in the health of your body.

Your mouth is the first part of the digestive process, and your mouth and nose are the main places where whatever you breathe in enters the body.

Your mouth has over 6 billion bacteria that live on your teeth and gums and in your saliva. Most of that bacteria is good and helps keep your mouth healthy and breaks down the food that you eat, but depending on what you eat and how you take care of your mouth, bad bacteria can grow and outnumber the good bacteria, which is what can cause plaque and cavities.

Bad bacteria love carbohydrates like sugar, so the more sugary food and drinks you consume, the more bad bacteria can grow in your mouth.

The best tip for a healthy mouth and keeping the bacteria in your saliva balanced is to **drink lots of water!** Especially if you are eating sugary foods or drinking a sugary drink, water will help rinse that sugar out of your mouth.

Questions to Begin the Discussion

When you think of your favorite food, what is the first thing you notice happening in your mouth? (**You salivate.**)

How do you think saliva helps you eat? (**Softens the food so it's easier to chew, makes it easier to swallow, and helps make sure food doesn't get stuck on your teeth**)

Questions to Dive a Little Deeper

What kind of foods do you think are good for your saliva and oral health? (**Crunchy vegetables like carrots and celery, lean meat like chicken, pork, or seafood, and fibrous foods like beans!**)

What kind of drinks do you think are good for your saliva and oral health? (**Water! Milk is great for adding calcium to your mouth that strengthens the enamel (the outer part of the tooth).**)

Now that you've learned about saliva and how important it is for keeping your mouth and body healthy, you are going to try and make your mouth water by creating a recipe for your favorite food! Draw your favorite food in the box and then write down the ingredients and steps to make your favorite food.

My favorite food is:

The ingredients I need to make it are:

1. _____
2. _____
3. _____
4. _____
5. _____



To make my favorite food, I need to do the following steps:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

After everyone has created their ingredient list and recipe for their favorite food, have some volunteers share them with the rest of the group.

During your available self-exploration time, split your group into an equal number of smaller groups and assign a group number or have the groups come up with their own names.

This activity will have three parts: Describing (15 mins), Hunting (10 mins), Guessing (5 mins).

*Describing: Each small group will find an object in the museum and describe it without saying what it is using the form below. **Each student in the group should fill out the form.** Groups should return to the atrium when they have finished describing their object or after 15 mins.*

Hunting: Have groups switch their forms and use the descriptions to try and find the objects! Groups should return to the atrium when they have their guesses or after 10 mins.

Guessing: When all the groups have returned, have groups take turns sharing their guesses to see who found the correct objects based on the descriptions!

Group Number/Name _____

Start by describing its physical characteristics.

Size (Tiny, small, large, bigger than you!): _____

Shape (Round, square, rectangular, or made up of different shapes):

Color (Red, white, or a mix of different colors): _____

Age (Does it look really old or new): _____

Weight (Imagine trying to hold it, is it heavy or light): _____

Material (Is it made out of wood, metal, or different things?):

Now describe what it might be used for and who might have used it.

This object is used to: _____

This item was probably used by: _____

Fill out after hunting for the described object:

What is the object: _____

Where is it located in the museum: _____