

# dental

## Lesson Plan

DENTAL HEALTH UNIT

### OBJECTIVES:

#### New Brunswick Department of Education

Health Education Curriculum Outcomes: *(Personal Wellness)*

- Kindergarten  
B1) identify types of activities that support a healthy lifestyle and explain their importance.
- Grade 2  
B2) explain the negative effects of poor nutrition on healthy teeth and the importance of regular brushing and regular visits to the dentist.
- Grade 3  
B1) describe personal habits that contribute to improved health.

### TIME FRAME:

One 40 minute lesson per day, for four days.

**Note:** in order for students to make proper observations on the experiment that occurs in Day Two of lesson plan, Day Two should fall on a Monday, Tuesday or Wednesday to avoid the weekend.

### PREPARATION:

Print and staple one copy of the dental journal 'My Teeth and Me' for each student in the class.

### ADDITIONAL RESOURCES:

#### • Printables:

Word Search  
<http://www.sdcoe.k12.ca.us/smiles/wordsearch.html>

Crossword Puzzle  
<http://www.sdcoe.k12.ca.us/smiles/crossword.html>

Unscramble Words  
<http://www.abcteach.com/teeth/unscramble.htm>

Printable Coloring Pages  
<http://www.coloring.ws/dental.htm>

'Fabulous Facts I Learned About Keeping Healthy Teeth'  
[http://www.abcteach.com/free/t/teeth\\_fabulousfacts.pdf](http://www.abcteach.com/free/t/teeth_fabulousfacts.pdf)

#### • Books available from the New Brunswick Libraries:

'The Dentist & You' by Diane Swanson □ (J617.6 SWA)

'I Know a Dentist' by Naomi Barnett □ (J617.6 BAR)

'Open Wide: Tooth School Inside' by Laurie Keller □(J617.6 KEL)

'What to Expect When You Go To The Dentist' by Heidi Murkoff □ (J617.6 MUR)

'Going to the Dentist' by Fred Rogers□ (J617.6 ROG)

'The Tooth Survival Book' by American Dental Association□ (J617.6 TOO)

'All the Better to Bite With' by Helen Doss□(J617.601 DOS)

'A Dentist's Tools' by Kenny DeSantis□ (J617.60028 DES)

#### • Resources for a Bulletin Board Display:

Tooth Shapes:  
<http://www.abcteach.com/teeth/toothflash.htm>

Plaque Fighter Award:  
<http://www.oralb.com/learningcenter/teaching/master3.asp>

History of the Toothbrush:  
<http://www.oralb.com/learningcenter/teaching/history.asp>



# DAY 1 *The Importance of Teeth*

DENTAL HEALTH UNIT

## TIME FRAME:

One 40-minute lesson

## OBJECTIVE:

Students will understand that different teeth perform different roles in the mouth.

## MATERIALS:

- knife (*for teacher's use only*)
- apple cut into slices for each student
- hand-held mirror for each student
- pencils

## PREPARATION:

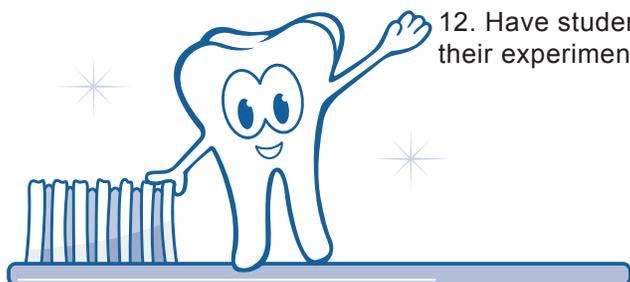
Prepare apple slices before class, one for each student.

## EXTENSIONS:

**Art:** Have students create mouth models using teeth and gums cut out of construction paper. They can use these models to demonstrate to a different class the jobs various teeth play in the mouths when chewing.

## INSTRUCTIONS:

1. Explain that you will be studying teeth today and the different jobs teeth have when it comes to eating.
2. Have students get into small groups.
3. Ask each group to think of three things that teeth do.  
 *example: Teeth are important for speaking, eating and smiling.*
4. Have students look at their own teeth using a hand-held mirror and write their observations down.  
 a. What do the teeth you can see look like?  
 b. Which teeth are for biting and tearing of food?  
 c. Which ones grind up the food?
5. Have students look at the '*Teeth Chart*' in their journals and by using their proper names, identify the different teeth they observed on their sheets.
6. Give students a chance to share what they discovered in small groups.
7. Now instruct the class that you are about to conduct an experiment that will only work if everyone follows the directions exactly.
8. Tell them that they are going to eat an apple slice, but they are going to do it very carefully and notice which teeth are doing the work. No one is to start eating before the experiment actually begins.
9. Hand out the apple slices. Have students close their eyes and keep them closed throughout the experiment.
10. Have the students bite the apple in half and notice the following:  
 a. Which teeth are doing the biting?  
 b. Which teeth get involved next?  
 c. What is the tongue doing?  
 d. Which teeth are the ones to finish the chewing?  
 e. How big do the apple pieces feel at the beginning and the end of the experiment?  
 f. Where does the apple go?
11. Keeping their eyes closed, once they have completely swallowed the first bite, instruct them to put the second half in their mouths and repeat the process.
12. Have students write down all their observations in their journals and compare their experiment to the teeth chart.



### TIME FRAME:

One 30-minute lesson plus an additional 2 minutes twice a day for observations.

### OBJECTIVE:

Students will understand the destructive nature of plaque acid in their mouths.

### MATERIALS:

- 2 clear jars with lids  
(large enough for an egg)
- 2 labels
- marker
- 2 raw eggs
- water
- white vinegar
- pencils

### PREPARATION:

Gather materials

### RESULTS:

*In two or three days, the acids in the vinegar will dissolve the egg-shell around the egg. The egg in the jar with water will remain unchanged. Explain that acids in the vinegar are similar to the acids that attack the enamel in our teeth. If teeth are not brushed and flossed, the enamel can begin to dissolve and allow cavities to form.*

### INSTRUCTIONS:

1. Ask students what they know about tooth decay.
2. Explain that you will be conducting a scientific experiment today on what happens when teeth are not properly cleaned and the acids produced by plaque attack the teeth.
3. Explain that vinegar is a mild acid. If we do not brush our teeth, plaque forms and gives off acids very similar to vinegar. Also explain that one of the materials that make up eggshells, calcium, is also an important substance in teeth. For the experiment, you will be using eggshells to represent teeth and vinegar to represent the acids in plaque. The second jar with eggs in water is the control, or something you will use to compare the findings in the jar with vinegar.
4. Place one egg into each of the two glasses and ask the students to hypothesize, or make their best guess, at what will happen when you put water in one jar and vinegar in the other. Have them record their ideas in their journals.
5. Now fill enough water into one jar to cover the egg and do the same with vinegar in the other jar. Label and date the two jars.
6. Let the students observe the contents of the two jars and note anything they see.
7. *(Small bubbles will form on the egg in the vinegar - this is a chemical reaction.)* Explain that this is similar to what happens when you eat. Acids in your mouth, much like acids in the vinegar, react with the food and start to break it down. Some acid is helpful for us to digest food but unless we brush and floss regularly we could have too much of it which is harmful to our teeth.
8. Ask students to come up with a hypothesis of what will happen if you leave the vinegar and egg in the jar for several days and write it in their journals.
9. Observe changes that take place twice a day and have students record these changes.



# DAY 2/3 PART 1: *Brushing*

## TIME FRAME:

Day 2: one 10-minute lesson  
Day 3: one 30 minute lesson

## OBJECTIVE:

Students will learn the importance of brushing properly.

## MATERIALS:

- 1 hard-boiled egg for each group of two children
- 1 toothbrush for each group of two
- 1 cup for each group of two
- assorted flavors of dark soda
- homemade toothpaste  
(amount required per student)
  - 2 tsp calcium carbonate
  - 1pkg sugar substitute
  - 1/4 tsp baking soda
  - 3 drops essence of peppermint
- teaspoon (1 per child)
- small container (1 per child)
- plastic spoon (1 per child)
- handouts
- pencils□

## PREPARATION:

Grind up enough calcium carbonate (*chalk*) for each child to have 2 tsps of powder. This is approximately 1 piece of chalk per student.

## EXTENSIONS:

**Language Arts:** Have students write a brochure to share with another class or their families about the importance of brushing.

## INSTRUCTIONS:

### On Day 2:

1. Talk about what things are good for your teeth and what things are bad.
2. Explain to the students that the egg represents their teeth right now (*nice and white*). Tell them the soda resembles the bad things for their teeth.
3. Arrange students into partners. Have each group of two drop their “tooth” into the dark soda. For variety, use different colors and flavors of soda for each group. Ask them what they think will happen to the egg overnight. Have them record their hypothesis in their journals.

### On Day 3:

1. Tell the students that you are going to make homemade toothpaste.
2. Arrange students into same partners as the day before. Give each group of two enough ingredients for both members to make their own toothpaste.
3. Mix together 2 teaspoons of calcium carbonate (*chalk*), one package of sugar substitute, 1/4 teaspoon of baking soda. (*Option: add 3 drops essence of peppermint.*) Slowly add water to make a paste; this is approximately 1 teaspoon.
4. Have students look at hypotheses they made on previous day.
5. Look at the eggs. Have students record what they observe in their journals.
  - a. What happened?
  - b. Why do you think that happened?
6. Have students read the ‘*How to Brush*’ page in their journals.
7. Have each group of partners take a tooth brush and put their toothpaste on it. Tell them to gently brush their tooth (*the egg*).
8. Have them record their observations in their journals.
  - a. What happens when you use good brushing skills?



# DAY 3/4 PART 2: Flossing

## TIME FRAME:

Day 3: One 10-minute lesson  
Day 4: One 40-minute lesson

## OBJECTIVES:

- Students will learn how to floss properly.
- Students will observe that brushing alone will not remove all the plaque from tooth surfaces.

## MATERIALS:

- shoe box
- string
- scissors (for teacher's use only)
- rubber glove
- peanut butter

**Note:** If your class has a peanut allergy, a mixture of corn syrup & molasses will also work well.

- plastic knife
- dental floss
- toothbrush
- leftover homemade toothpaste
- pencils

## PREPARATION:

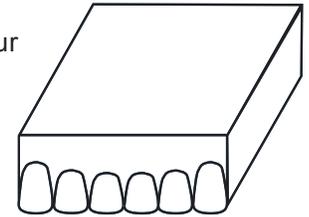
1. Before class, make a large mouth model using a shoe box by removing the cover and cutting the sides in the shape of teeth.
2. Cut 18" piece of string or floss.
3. If none is left over, prepare homemade toothpaste.

## INSTRUCTIONS:

### On Day 3:

1. Ask for raised hands from everyone who brushes their teeth at least twice a day. Now ask to see hands of students who floss daily. Tell the class that both are important and that they are going to learn why and how to floss.

2. Take the 18" of string or floss and wrap it around your index fingers as if you were about to floss. Using the shoe box mouth model, demonstrate proper technique. (See journal for detailed flossing techniques.)



3. For homework, ask students to practice flossing at home.

### On Day 4:

1. Ask to see hands of those who remembered to floss last night and review flossing techniques from previous day.

2. Ask students to form a hypothesis in their journals, or best guess, about what cleans teeth better, a toothbrush or dental floss and why.

3. Have them share their hypotheses with a partner.

4. Put the glove on your hand and explain that it is a model for teeth. Hold your hand with fingers extended and slightly together, like a police officer stopping traffic.

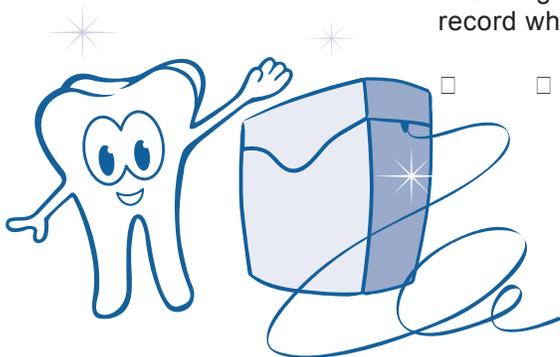
5. Have a student help you by smearing peanut butter (or a corn syrup & molasses mixture) on your gloved hand with a plastic knife. Be sure you spread your fingers apart to allow all areas to be covered.

6. Ask "If in our model my fingers are teeth, what is the peanut butter?" have students come up with the answer "plaque" or food particles.

7. Have a second volunteer come up and try to remove all the peanut butter from your hand using a toothbrush with homemade toothpaste. (It is important to try to keep your fingers together.)

8. During the brushing process, instruct the other students to observe carefully and record what they see in their journals.

□ □ □ □ □ □ □ □ □ □ continue >



# DAY 3/4 PART 2: Flossing

## EXTENSIONS:

**Math:** Have students create a brushing and flossing journal and record the number of times they brushed and flossed. Everyday the students bring in their brushing and flossing journals. Each time they have brushed their teeth the day before; they can color in 1" square of a large classroom graph and write their names on their squares. They do the same thing for flossing. At the end of the week, they can see all the great work they did to promote their dental health.

**Art:** Have students make their own shoe box mouth models and decorate them. When they are finished, they can go into a different classroom and show that class how to floss properly.

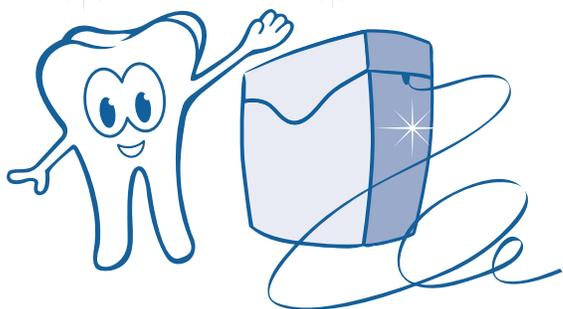
**Art Alternative:** Have students create mouth models using marshmallows and construction paper. Have students demonstrate proper techniques.  
See Alternative Lesson Plan A.

**Language Arts:** Have students write a scary story about the evil creatures that live in the valley of teeth and the good floss that comes and cleans them out.

## INSTRUCTIONS:

### On Day 4 continued:

9. Remind students that you need to brush for two minutes and then ask a third volunteer to come up and use floss.
10. Have the other students observe and record.
11. Ask the class what they observed and if their hypotheses were proved true or false. Explain that a toothbrush is good for cleaning exposed surfaces of teeth, but to clean in between teeth you need dental floss. Plaque that builds up between teeth can cause decay and gum disease.



## Alternative A Lesson Plan

### TIME FRAME:

One 30-minute lesson

### OBJECTIVE:

Students learn how to take care of their teeth.

### MATERIALS:

- construction paper
- scissors
- miniature marshmallows
- glue
- toothbrushes
- dental floss

### PREPARATION:

- Cut construction paper ovals for each student the same size as the reproducible teeth pattern.

- Copy the tooth pattern.

- Fold ovals in half to create open and closed "mouths".

### CONCLUSION:

Teeth are used to cut and grind food into small pieces. Young children start with a set of 20 baby teeth. These are replaced by 32 permanent teeth by adulthood. Brushing every day prevents tooth decay.

### INSTRUCTIONS:

1. Explain that you will be studying teeth today and the different jobs teeth have when it comes to eating.
2. Give a "mouth", glue, teeth pattern, toothbrush, floss and twenty marshmallows to each student.
3. Have students cut and glue the teeth pattern inside the open mouth construction paper.
4. Ask the students to glue a marshmallow on top of each tooth in the pattern and fold the construction paper to create a mouthful of teeth.
5. Allow models to dry.
6. Discuss proper tooth care.
7. Have students practice brushing and flossing the "teeth" on the models
8. Ask each group to think of three things that teeth do.
  - a. For example: Teeth are important for speaking, eating and smiling.
  - b. What is the proper way to brush your teeth?
  - c. What is the proper way to floss your teeth
  - d. Why is it important to brush and floss your teeth after every meal?
9. Have students look at the 'Teeth Chart' in their journals and identify the different teeth they observed on their sheets.
10. Have students write down all their observations in their journals and compare their experiment to the teeth chart.

### EXTENSIONS:

**Music:** Have the class learn "The Toothbrush Song" to the tune of "Row Row Row Your Boat." Have students brush and floss their models to the words of the song.



## The Toothbrush Song

Brush, brush, brush your teeth  
Brush then everyday  
Happy, healthy teeth you'll have  
If it's done this way

Floss, floss, floss your teeth  
Floss them everyday  
Using the string to clean between  
Keeps the plaque away

Clean, clean, clean your teeth  
Clean them everyday  
Your teeth will sparkle for years to come  
In the most beautiful way



---

### PRIMARY TEETH PATTERN

