

Oral Health Education Curriculum Grades K - 5



**Division of Dental Health** 



#### Saving Smiles Series Healthy Mouth, Healthy Body Oral Health Education Curriculum - Grades K - 5

# Introduction

The Health Education Standards of Learning (SOL) for the Virginia Public Schools, provide the framework for instruction of the knowledge and skills needed for students to lead healthy lives. The goal of this curriculum is to educate students about the impact of personal hygiene on oral and overall health. Healthy children who are free of dental pain will learn more effectively in the classroom. The Division of Dental Health, Virginia Department of Health endorses the concept of emphasizing oral health as an integral part of total body health.

Through this **Saving Smiles Series**, the Division of Dental Health believes that oral health can be integrated throughout the child's education. These modules were developed to help meet the Health Education SOL for the Virginia Public Schools in grades K - 5.

As a result of incorporating the **Saving Smiles Series** into the elementary curriculum, the student will be able to do the following:

- Recognize the relationship between personal behavior and personal health, and have an understanding of oral health promotion and dental disease prevention.
- Demonstrate an ability to identify accurate oral health information and to be able to utilize this information to positively influence oral health and total well being.
- Demonstrate a variety of oral health behaviors that promote healthy mouths, healthy bodies and healthy communities.

The modules for grades K - 5 contain lesson plans which are designed in a "ready to go" format for the classroom teacher. Each lesson plan includes:

- a related Health Education SOL
- discussion information for the presenter
- leading questions to engage the students
- possible activities for students to assess knowledge/skills
- resources for the teacher
- grades 3-5: sample evaluation questions

A teacher evaluation/feedback form is included with the curriculum. This form can be faxed to the Division of Dental Health. We appreciate your comments as you integrate the oral health education information into classrooms. An additional resource list is also included.

#### Oral Health Education Curriculum Grades K – 5

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# **Oral Health Information Resources**

-American Academy of Pediatric Dentistry – www.aapd.org

-American Dental Association – <u>www.ada.org</u>

-American Dental Hygienists' Association - www.adha.org

-Division of Dental Health, Virginia Department of Health – <u>www.vahealth.org/teeth</u>

-National Institute of Dental Research – <u>www.nidr.nih.gov</u>

-National Maternal and Child Health – Oral Health Bright Futures Toolbox – www.mchoralhealth.org



# Module Feedback Form

Presenter Name	Date of Presentation		
School	County	Grade	
Position (eg., teacher, schoo	ol nurse, volunteer) _		
Estimated Time Presenting	N	lumber of Children	
List Module(s) Used in Pres			
List Classroom Activities Us			
Comments:			
Please FAX (804-864-7783) o	or mail form to:		
Sharon Logue, RDH, MPH Division of Dental Health Virginia Department of Healt 109 Governor St. – 9 <sup>th</sup> Floor	th		

Richmond, VA 23219 Thank you!



# Kindergarten Module

Oral Health Education Curriculum

This kindergarten module includes two lesson plans. As a result of implementing this module the student will accomplish the following objectives:

- 1. Explain why brushing teeth is an important daily habit. (SOL K.2b and c)
- 2. Discuss what people in the community can answer questions about teeth. (SOL K.4b)



# Kindergarten

<u>Lesson Plan</u> – #1 Explain why brushing teeth is an important daily habit. (SOL K.2 b,c)

**Standard of Learning K.2** – The student will explain the concept of being healthy. Key concepts/skills include:

b) personal hygiene practices

c) germs (e.g., bacteria, viruses) that lead to common diseases

**Discussion information for the presenter** – Health habits formed by young children are more likely to be continued into adolescence. Children learn about washing hands to remove germs and a comparison can be made with cleaning plaque germs from teeth and gums. Plaque bacteria causes both dental decay and periodontal (gum) disease. Young children are at greater risk for dental decay which is the most prevalent chronic disease of children. Daily toothbrushing is an important habit for young children to adopt, and reinforcement at home by parents is essential. Parents can role model good oral health habits for their children and discuss why dental visits are important.

Fine motor skills are not fully developed with young children and toothbrushing techniques can vary. Most children can demonstrate a circular method of brushing. Basic concepts of top and bottom, and front and back teeth can be emphasized. Encourage children to "tickle" their gums as they brush to remove more germs at the gumline. Chewing surfaces or "wrinkles" on back teeth (molars) are at higher risk for decay because food and bacteria can hide in the crevices. These molars need special attention everyday to avoid cavities. Parents can discuss dental sealants with their dentist as children grow and their permanent molars erupt.

Brushing should be done a minimum of twice daily, before coming to school and at night prior to bedtime. Children who frequently drink sugary beverages and eat sugary foods need to brush more often.

# Leading questions:

- Why is it important to brush teeth?
- How many times a day should you brush your teeth?
- What can happen to teeth if you do not brush them every day?

#### Possible activities to assess students' knowledge/skills:

- 1. If a sink is available, students could demonstrate brushing (toothpaste is not necessary).
- 2. Using large brushing models, the student can demonstrate the correct brushing techniques on the teeth.
- 3. \*Write a song about how to brush. Then have the students march around the room as they sing it.
- 4. Draw a picture about why a healthy smile is important.
- 5. \*Clear a floor area and give each student a long piece of colored yarn, put them in small groups and have them shape their yarn pieces into the shape of a healthy tooth or smile. When completed have children walk around and look at each other's work with the yarn.

\*For total wellness and obesity prevention we encourage teachers to consider movement with some of the learning activities.

#### Estimated time for presentation

A minimum of 10 minutes to a maximum of 20 minutes is needed depending on the number of activities included.

#### <u>Resources</u>

- "Your Child's Teeth" and "How To Brush" brochures and coloring books from Division of Dental Health, Virginia Department of Health: <u>www.vahealth.org/teeth</u>



# Kindergarten

#### <u>Lesson Plan</u> – #2 Discuss which people in the community can answer questions about teeth. (SOL K.4b)

**Standard of Learning K.4** – The student will identify sources of health and safety information. Key concepts/skills include:

b) individuals, including school nurses, family members, health care personnel, teachers, and public safety officials.

**Discussion information for the presenter:**- Young children are practicing new habits that will keep them safe and healthy throughout life. They are also learning to find answers to questions from parents, family and trusted adults. Regular medical and dental visits are opportunities for children to ask questions about their health and bodies and get reliable health information. School nurses are excellent resources for students also as they learn about safety rules and health issues.

#### Leading questions:

- Who could you visit in the community to check your teeth?
- Who could tell you how to take care of your teeth?
- Who could you talk to at school if you have a question about your teeth?
- Who talks about safety rules at school?
- Have you ever asked your parents about your teeth?

#### Possible activities to assess students' knowledge and skills:

- 1. Invite a dental team member to come to class and answer questions about dental health.
- 2. Have the children write a question to ask the school nurse about how to stay healthy.
- 3. Have the children draw a picture of a person who they would feel comfortable asking health questions.

# Estimated time for presentation

A minimum of 10 minutes to a maximum of 20 minutes is needed depending on the number of classroom activities included.

# <u>Resources</u>

-"How to Brush" brochure and "Visiting the Dentist" coloring book from Division of Dental Health, Virginia Department of Health: <u>www.vahealth.org/teeth</u>



# **First Grade Module**

Oral Health Education Curriculum

This first grade module includes six lesson plans. As a result of implementing this module the student will accomplish the following objectives:

- 1. Identify three functions of healthy teeth. (SOL 1.1b)
- 2. Demonstrate correct toothbrushing technique for young children. (SOL 1.2a)
- Demonstrate safe toothpaste use and proper toothbrush storage. (SOL 1.2a)
- 4. Identify nutritious meals, snack foods and beverages to improve general and oral health. (SOL 1.2f)
- 5. Identify the oral health professionals met during a dental visit. SOL 1.5a and b)
- 6. Follow school safety rules during activities to avoid dental and facial injuries. (SOL 1.3a, b, c and h; SOL 1.6a, b and c)



**First Grade** 

<u>Lesson Plan</u> – #1 Identify three functions of healthy teeth. (SOL 1.1b)

**Standard of Learning 1.1** – The student will identify the major body systems and explain their connection to personal health. Key concepts/skills include: b) the digestive system.

<u>Discussion information for the presenter</u> – The oral cavity is the beginning of the digestive system. The first step of digestion is the mastication (chewing) process. Teeth are different sizes and shapes for different functions. Incisors are for cutting, canines are for tearing, and premolars and molars are for crushing and grinding foods. Other functions of healthy teeth include speaking, smiling, and providing structure for facial support.

Humans have two sets of natural teeth in a lifetime: deciduous (primary) and permanent. First graders normally have 20 primary teeth prior to the eruption of permanent teeth. A complete permanent dentition includes 32 teeth. Primary teeth include incisors, canines and molars. Permanent teeth include incisors, canines, premolars and molars.

#### Leading questions:

- Who has teeth?
- Do animals have teeth?
- What do teeth do?
- Have you lost any teeth?
- How many sets of natural teeth do you have during your life?
- How long are your adult teeth going to last?

#### Possible activities to assess students' knowledge/skills:

- 1. Using small hand mirrors have children look in their own mouths.
- Have pictures of animals to identify the different shapes and types of teeth. (e.g., beavers and rabbits for incisors, dogs for canines, and horses for molars)

- 3. Bring in a variety of nutritious foods and have students eat the foods to see what teeth they use. (biting an apple with their incisors)
- 4. Show pictures of babies eating soft foods.
- 5. Create a lost tooth club or poster in the classroom.
- 6. Have the students draw a smile at different ages to indicate how many teeth they will have.
- 7. Tell a story about losing a tooth.
- 8. Create a letter to the tooth fairy describing how they plan to take care of their new teeth.

# Estimated time for presentation

A minimum of 10 minutes to a maximum of 30 minutes is needed depending on the number of activities included.

#### <u>Resources</u>

- "Your Child's Teeth" brochure and coloring books from Division of Dental Health, Virginia Department of Health: <u>www.vahealth.org/teeth</u>



# **First Grade**

# <u>Lesson Plan</u> – #2 Demonstrate correct toothbrushing technique for young children. (SOL 1.2a)

**Standard of Learning 1.2** – The student will explain that good health is related to health-promoting decisions. Key concepts/skills include: a) personal hygiene; including care of one's teeth.

**Discussion information for the presenter:** The purpose of toothbrushing is to remove bacterial plaque and food, thus reducing the risk for dental diseases: dental decay (cavities) and periodontal (gum) disease. Bacterial plaque is the causative agent for both diseases. Young children are at greater risk for dental decay. Dental decay is the most prevalent chronic disease of young children. There are three factors necessary for decay to occur: an erupted tooth, a carbohydrate source in the mouth and bacteria.

The mechanical action of toothbrushing adequately removes the sticky plaque and food from tooth and gum surfaces. Toothbrushes need to be replaced at least every 3 months or when the bristles become frayed. A first grade student needs a smaller size brush head with soft bristles.

Fine motor skills are not fully developed with young children. Toothbrushing techniques may differ for different age groups. Most young brushers can handle a circular method of brushing. Students need to brush three surfaces of each tooth: the outside surface, the inside surface and the chewing surface. General concepts of front teeth, back teeth, top and bottom teeth need to be emphasized with young children. Encourage children to "tickle" their gums as they brush. Chewing surfaces of back teeth may be referred to as "wrinkles" – the chewing surfaces are at higher risk for dental decay because food and bacteria can hide in the crevices or "wrinkles." Cleaning the tongue during toothbrushing removes more bacteria. Children should gently brush the top of their tongue using a downward stroke.

Brushing should be done a minimum of twice per day. The most important time to brush is at night prior to bedtime. Young children need adults to assist with brushing once a day at home. Toothbrushing should take about 2 minutes. Children who frequently drink sugary beverages and eat surgery foods need to brush more often.

# Leading questions:

- Why do we brush our teeth?
- How many times a day do you brush your teeth?
- How do you brush your teeth?
- Should you use anyone else's toothbrush?
- What parts of your teeth do you brush?

# Possible activities to assess students' knowledge and skills:

- 1. If a sink is available, students could demonstrate brushing. (toothpaste is not necessary)
- 2.\*Have each student stand up and act as a tooth so that the entire class forms a row of top teeth or bottom teeth. Then with a large demonstration brush, a student demonstrates correct brushing. The waist could represent the gumline.
- 3. Using brushing models, the student can demonstrate the correct brushing technique on the large teeth.
- 4. Draw a picture of what happens when you do not brush your teeth.
- 5. Send disclosing tablets home with children to stain the plaque red prior to brushing.
- 6.\*Write a class song about how to brush. Then have students march around the room as they sing it..
- 7. Develop a classroom brushing challenge and offer prizes.
- 8 .Arrange a toothbrush exchange bring in an old toothbrush for a new one.
- 9. View a videotape on correct toothbrushing.

\*For total wellness and obesity prevention we encourage teachers to consider movement with some of the learning activities.

#### Estimated time for presentation

A minimum of 10 minutes to a maximum of 30 minutes is needed depending on the number of classroom activities.

# <u>Resources</u>

-Videotapes for the classroom from American Dental Association: www.ada.org

-"How to Brush" brochure from Division of Dental Health, Virginia Department of Health: <u>www.vahealth.org/teeth</u>



**First Grade** 

<u>Lesson Plan</u> – #3 Demonstrate safe toothpaste use and proper toothbrush storage. (SOL 1.2a)

**Standard of Learning 1.2** – The student will explain that good health is related to health-promoting decisions. Key concepts/skills include: a) personal hygiene; including care of one's teeth.

**Discussion information for presenter** – Bacterial plaque and food can be removed by a toothbrush and water alone. Adding toothpaste does assist in cleansing the teeth and freshening the breath. Brushing is more effective in reducing dental decay when fluoride is an ingredient in the toothpaste. A small amount of fluoride toothpaste is recommended for children. Toothpaste was never intended to be a systemic (swallowed) source of fluoride. Children need to be instructed to expectorate (spit out) the toothpaste after brushing. Routinely swallowing excess fluoride toothpaste while permanent teeth are still developing under the gums may lead to a condition called fluorosis. Fluorosis is characterized by white or brown spots in the enamel surface of permanent teeth. This staining cannot be removed because it occurred while the teeth were developing. A peasize amount of fluoride toothpaste is the appropriate amount for young children.

Bacteria collect on toothbrush bristles. Once brushing is completed, the brush should be rinsed with water and left to air dry. An airtight toothbrush cover over the wet bristles contributes to the growth of bacteria. Replace brushes every 3 - 4 months, more frequently if the brush becomes frayed or worn. Even family members should not share toothbrushes.

With classroom brushing programs, the toothbrushes need to be stored in a manner that permits air-drying and spacing so brushes do not touch. Label all brush handles with the child's name in permanent marker. Give each child a disposable cup for rinsing. When dispensing toothpaste for a group of children with one tube of toothpaste, dispense a pea-size amount of toothpaste on the edge of the cup for the child to wipe off with their individual toothbrush.

# Leading questions:

- How does your family store their toothbrushes in the bathroom?
- How much toothpaste do you use at home?
- Why do we use toothpaste?
- Do you eat fluoride toothpaste?
- Do you know what happens if you eat too much toothpaste?

# Possible activities to assess students' knowledge/skills:

- 1. If a sink is available, students could demonstrate brushing using toothpaste.
- 2. Have students practice dispensing a pea-size amount of toothpaste on a paper plate.
- 3. Bring in different toothpastes and look for the word fluoride on the label.
- 4. Use a coloring sheet showing steps in correct brushing and storage of toothbrush.
- 5. Make a classroom toothbrush holder.
- 6. Bring different types of toothbrush covers to show children.
- 7. Demonstrate correct and incorrect storage of toothbrushes. (put several brushes in one bathroom cup and have bristles touching)

# Estimated time for presentation

A minimum of 10 minutes to a maximum of 30 minutes is needed depending on the number of activities included.

# <u>Resources</u>

-Consumer information on toothbrushes and toothpastes from American Dental Association: <u>www.ada.org</u>

-"How to Brush" brochure from the Division of Dental Health, Virginia Department of Health: <u>www.vahealth.org/teeth</u>



**First Grade** 

<u>Lesson Plan</u> – #4 Identify nutritious meals, snack foods and beverages to improve general and oral health. (SOL 1.2f)

**Standard of Learning 1.2** – The student will explain that good health is related to health-promoting decisions. Key concepts/skills include: f) proper nutrition

**Discussion for the presenter** – Healthy, pain-free teeth are needed to chew nutritious foods. Healthy diets can help prevent dental diseases and contribute to overall health. Carbohydrates (simple and complex sugars) combined with bacteria on teeth lead to dental decay. Research has shown that the **frequency** that teeth are exposed to both bacteria and carbohydrates is an important factor in the development of new decay. Children require frequent snacking for proper growth. Choosing the correct foods, beverages and snacks is essential to reducing the risk for both dental decay and childhood obesity.

Factors to consider about between meal snacks are the **simple sugar content**, the **frequency** it is eaten, the **texture** of the food and the **nutritional content**. Sugars in foods and beverages are used by bacterial plaque to create acid that dissolves tooth enamel. Limit sweet treats for children to once a day at home where the toothbrush is close by. Crisp, crunchy fruits and vegetables do not adhere as readily to the teeth and they provide essential vitamins and minerals. Soft, sticky foods will cling to the teeth longer. Snacking with nutritious, low-fat choices will contribute to overall health. As with any food or beverage served, appropriate portion sizes for snacks need to be followed.

Offer thirsty children water to drink. Water is not only calorie-free but provides additional fluoride if the community has fluoridated water. Offer calorie-containing beverages (milk and fruit juice) at meal times only to help maintain a healthy body weight. Limit the availability of soft drinks to children. Most regular 12-ounce sodas contain 10 - 12 teaspoons of added sugar.

A healthy snack suggestion is fresh fruit and cheese. Cheese (e.g., Jack, Cheddar, Swiss) has been shown by dental research to interfere with the acidic action of bacterial plaque on enamel. Cheese also contains calcium for developing bones and teeth. Fresh vegetable sticks, nuts and popcorn are other possible

# **Resources**

-Food models, posters and pamphlets from National Dairy Council: <u>www.nationaldairycouncil.org</u>

-"A Healthy Diet is Something to Smile About" - brochure from the Division of Dental Health/VDH: <u>www.vahealth.org/teeth</u>

-"Fruits and Vegetables For Me" website with coloring sheets and facts on foods <u>www.fandvforme.com.au</u>

snacks. Offering low-fat cheese or bean dips with vegetables can be a strategy to encourage trying new foods.

#### Leading questions:

- What is your favorite snack after school?
- Why should you brush your teeth after snacking?
- What are some healthy drinks?
- Can you name some fruits and vegetables?
- Should you snack right before a meal is served?
- If you snack on surgary foods what can happen to your teeth?

#### Possible activities to assess students' knowledge/skills:

- Have a taste-testing party introducing new, healthy snacks or ethnic foods.
   \*Before tasting have students march to music around the room to "wake up" their appetites.
- 2. Place real foods in a grab bag and have children put their hand in the bag to identify shape and feel without looking.
- 3. \*Walk to school vending machines and let children point out healthy and unhealthy snacks/beverages for teeth and total health.
- 4. Develop a board game where students match unhealthy foods to unhealthy teeth and healthy foods to healthy teeth.
- 5. \*Divide the blackboard into two sides with a picture of a happy tooth and a sad tooth with a cavity. Have a relay with children sticking pictures of foods and beverages in the right category.
- Read labels of favorite foods and drinks looking for different sugars. (4 grams = 1 teaspoon of sugar) Then demonstrate actual sugar content of foods and beverages with teaspoons of sugar.
- 7. Create a paper buffet with pictures of foods, food models and paper plates. Students then make meals on the paper plates.
- 8. \*Have students create a snacking "rap song" and have children march as they sing.
- 9. Develop a healthy snack challenge for children to bring to school.

\*For total wellness and obesity prevention we encourage teachers to consider movement with some of the learning activities.

#### Estimated time for presentation

A minimum of 10 minutes to a maximum of 30 minutes is needed depending on the number of activities included.



**First Grade** 

<u>Lesson Plan</u> – #5 Identify the oral health professionals you meet during a dental visit. (SOL 1.5a and b)

**Standard of Learning 1.5** – The student will identify the health care providers and agencies that influence personal health. Key concepts/skills include: a) the role of community health care professionals; b) the purpose of community health care agencies

b) the purpose of community health care agencies.

**Discussion for the presenter** – Regular dental and physical examinations are needed to monitor growth and development in children. The first dental visit could impact oral health for the remainder of the child's life. It is important that the child not be fearful of dental professionals. Classroom activities can help prepare the child for regular dental visits and alleviate any fear of the unknown. With regular office visits a child will become familiar with the roles of each oral healthcare provider. Children should visit the dentist by their first birthday, for a visual exam to be sure there are no early problems. After the age of three, children should be seen by the oral healthcare provider at least twice per year.

The dentist usually has the highest education level and holds a professional license. The dentist diagnoses dental diseases and provides restorative care, like fillings. The dental hygienist is a licensed prevention specialist, whose primary role includes health education and preventive care for teeth and gums. The dental assistant may be certified, usually works directly with the dentist or hygienist to assist in their respective procedures and can provide some preventive procedures.

#### Leading questions:

- Who has been to a dental office?
- What good things happened when you went to the dentist?
- How often should we go to the dentist?
- Who works in the dental office and what do they do?

#### Possible activities to assess students' knowledge/skills:

- 1. Role play a visit to the dental office with lab coats, masks, gloves, flashlights and tongue depressors.
- 2. Write a story or draw a picture about their visit to the dental office.

- 3. Develop a game matching the healthcare provider with their respective duties.
- 4. Schedule a field trip to a local dental office or clinic with a dentist, dental hygienist and dental assistant.
- 5. Write a letter to parents telling what they learned about each healthcare provider.
- 6. Have the teacher/parent videotape his/her trip to the dentist. Watch the tape in class and discuss the activities with the children.
- 7. Invite a dentist, dental hygienist or dental assistant to the classroom to give a presentation on job roles and oral health.

# Estimated time for presentation

A minimum of 10 to a maximum of 30 minutes depending on the number of activities included.

# <u>Resources</u>

-Local private dental offices and community/public health dental clinics for field trips

-Coloring books about visiting the dentist from Division of Dental Health, Virginia Department of Health: <u>www.vahealth.org/teeth</u>

-Videotape on visiting the dental office from the American Dental Association: <u>www.ada.org</u>



# First Grade

#### Lesson Plan – #6 Follow school safety rules during activities to avoid dental and facial injuries. (SOL 1.3a, b, c and h; SOL 1.6a, b and c)

**Standard of Learning 1.3** – The student will explain the need for specific rules and practices to promote personal safety and injury-free situations. Key concepts/skills include:

- a) bus and automobile safety;
- b) pedestrian safety;
- c) playground safety;
- h) the need for protective gear.

**Standard of Learning 1.6** – The student will demonstrate responsible personal and social behaviors in the school community. Key concepts/skills include:

- a) cooperative behavior;
- b) respect for others;
- c) adherence to school rules

**Discussion for the presenter** – Injuries to the mouth and face (orofacial injuries) are common among school age children. Part of personal safety is adhering to school safety rules and regulations. Learning appropriate behavior at a young age will promote injury-free situations. Cooperative behaviors on school property are important skills to learn. Orofacial injuries could result from one push at a water fountain, putting pens or pencils in the mouth or throwing a ball at head and face areas.

If a young child has a primary front tooth knocked out, a cold compress should be applied. With an older child, if a permanent tooth is avulsed (knocked out), place the tooth in milk and seek immediate dental treatment. Avoid handling the tooth as much as possible. Other common sources of orofacial trauma include car accidents, hot foods or beverages, and falls.

#### Leading questions:

- Has anyone here hurt their mouth or teeth from rough playing?
- What could happen if you pushed someone at the water fountain?
- What can happen if you chew on pens or pencils?
- Why is it a bad idea to throw things towards someone's face?
- If you knock out an adult tooth, is another tooth going to grow in?
- Do you wear a seat belt when riding in the car?
- Do you chew ice with your teeth?
- What do athletes wear in their mouths to protect their teeth when playing sports?

# Possible activities to assess students' knowledge/skills:

- 1. Role play cooperative behavior and showing respect for others.
- 2. Have students take turns being the safety/tooth patrol person.
- 3. Demonstrate on the playground appropriate behavior to avoid injury.
- 4. Black out some of the teacher's teeth and see how the students react. Discuss how to respect each other.
- 5. Demonstrate or role-play how to handle a dental emergency.
- 6. Invite a local athlete to visit the classroom to discuss sport safety and mouth guards.

# Estimated time of presentation

A minimum of 10 minutes to a maximum of 30 minutes is needed depending on the number of activities included.

# <u>Resources</u>

- "Pickle Poster" on dental emergencies, poster and brochure on mouthguards from the Division of Dental Health/VDH: <u>www.vahealth.org/teeth</u>

-Consumer information on athletic mouthguards and sport safety from American Dental Association: <u>www.ada.org</u>



# Second Grade Module

Oral Health Education Curriculum

**This second grade module includes six lesson plans.** As a result of implementing this module the student will accomplish the following objectives:

- 1. Identify the parts of the oral cavity that are involved in the digestive system. (SOL 2.1c)
- 2. Develop an awareness of the long-term effects of choosing nutritious foods and beverages for a healthy life and self image. (SOL 2.2a, 2.3e)
- 3. Describe plaque and its impact on dental diseases and self-image. (SOL 2.3c, 2.3e)
- 4. Identify the roles of oral health professionals met during a dental visit. (SOL 2.4a)
- 5. Develop an awareness of the overall health benefits associated with regular dental check-ups. (SOL 2.2c)
- 6. Describe the effects on the body of using drugs, alcohol and tobacco products. (SOL 2.2b)



# Second Grade

#### <u>Lesson Plan</u> – #1 Identify the parts of the oral cavity that are involved in the digestive system. (SOL 2.1c)

**Standard of Learning 2.1** – The student will identify the basic components and functions of the systems of the human body. Key concepts/skills include: (c) the interconnection of all body systems.

<u>Discussion information for the presenter</u> – The oral cavity is the beginning of the digestive system. The first step of digestion is the mastication (chewing) process. The muscles of mastication are found in the lip and cheek area. Teeth are different sizes and shapes for different functions. Food choices are influenced by sight, smell and taste. Taste buds have specific locations on the tongue to distinguish between sweet, salty, bitter and sour foods. Saliva flows easily during eating to moisten and lubricate the oral cavity. Chewing and swallowing are more difficult with a dry mouth.

#### Leading questions:

- What do you use to chew foods?
- What do you use to swallow a drink?
- Why do you have a tongue?
- Does your mouth water when you smell your favorite food?
- How do foods taste when you have a cold?
- How do you know if you are eating something poisonous?

#### Possible activities to assess students' knowledge/skills:

- 1. Have students color a picture of the tongue with taste buds.
- 2. Have a tasting party with sugary, salty and sour foods.
- 3. Have students hold their nose briefly and try to taste and identify a food.
- 4. Offer a dry and moist food (crackers and applesauce) and compare how easy or difficult they are to swallow.
- 5. Have students close their eyes and see if foods can be identified by smell.

# Estimated time for presentation

A minimum of 10 minutes to a maximum of 30 minutes is needed depending on the number of activities included.

# <u>Resources</u>

-"Smile for Good Health" and "A Healthy Diet Is Something To Smile About" - brochures from Division of Dental Health/VDH: <u>www.vahealth.org/teeth</u>

-American Dental Association: www.ada.org



# Second Grade

#### <u>Lesson Plan</u> – #2 Develop an awareness of the long-term effects of choosing nutritious foods and beverages for a healthy life and self-image. (SOL 2.2a and 2.3e)

**Standard of Learning 2.2**– The student will explain that personal health decisions and health habits influence health and well-being throughout life. Key concepts/skills include:

a) how food choices related to a healthy lifestyle.

**Standard of Learning 2.3** – The student will describe the influences and factors that impact health and well-being. Key concepts/skills include: e) self-image related to personal success.

**Discussion information for the presenter** - Healthy, pain-free teeth are needed to chew nutritious foods. Healthy diets can help prevent dental diseases and contribute to overall health. Carbohydrates (simple and complex sugars) combined with bacteria on teeth lead to dental decay. Research has shown that the frequency that teeth are exposed to both bacteria and carbohydrates is a very important factor in the development of new decay. Young children require frequent snacking because stomachs are smaller and energy levels are higher. Choosing the correct foods, beverages and snacks is essential in reducing the risk for both dental decay and childhood obesity. Be aware that many foods and beverages contain hidden sugars.

Childhood overweight and obesity have increased two fold over the past two decades and this has increased the risk for childhood diabetes. Diabetes negatively impacts oral health and can increase the risk for gum disease later in life. Establishing healthy behaviors early in life promotes both oral health and overall health. Physical activity levels influence the amount of calories needed by the body. Movement and activity on a daily basis are needed to maintain a healthy body weight.

An area of concern for children is soda consumption. These sweet sodas can cause tooth decay and contribute unnecessary calories. Most regular 12-ounce sodas contain 10 - 12 teaspoons of added sugar. Sweetened beverages are readily available in many vending machines. Remember to offer thirsty children

water to drink. Water is not only calorie-free but provides additional cavity protection if the community has fluoridated water. Offer calorie-containing beverages (milk and 100% fruit juice) at meal times only and in the appropriate serving size to help maintain a healthy body weight. Fruit juices can add extra calories quickly and can contribute to dental decay because they contain fruit sugars.

# Leading questions:

- What is your favorite snack to bring to school?
- Why should you brush your teeth after snacking?
- What is your favorite drink?
- What are some healthy drinks?
- Can you name some fruits and vegetables?
- If you snack on sugary foods what can happen to your teeth?
- How do you feel when you drink a lot of soda?

# Possible activities to assess students' knowledge/skills:

- 1. Have students measure out sugar found in a soda. (4 grams = 1 tsp. sugar)
- 2. Make a visit to school vending machines and let children point out healthy and unhealthy snacks/beverages for teeth and total health.
- 3. Have parents try a healthy snack party with new fruits and vegetables.
- 4. Track the days that students bring in healthy snack or beverage choices.
- 5. Play a grocery store game and shop for healthy foods and beverages.
- 6. Develop a healthy snack challenge for children to bring to school.

# Estimated time for presentation

A minimum of 15 minutes to a maximum of 30 minutes is needed depending on the number of activities included.

#### <u>Resources</u>

-Food models, posters and pamphlets from National Dairy Council: <u>www.nationaldairycouncil.org</u>

-"A Healthy Diet is Something to Smile About" - brochure from the Division of Dental Health/VDH: <u>www.vahealth.org/teeth</u>

-Fruits and Vegetables For Me website with coloring sheets and facts on foods <u>www.fandvforme.com.au</u>



# Second Grade

<u>Lesson Plan</u> – #3 Describe plaque and its impact on dental diseases and self-image. (SOL. 2.3c, e)

Standard of Learning 2.3 – the student will describe the influences and factors that impact health and well-being. Key concepts include:
c) germs and diseases
e) self-image related to personal success

**Discussion information for the presenter** - Dental decay is the most prevalent chronic disease of young children. Daily tooth brushing and flossing by young children is the recommended method for plaque removal. Parental participation in oral health habits is needed for this age group.

Plaque is only one of the factors in the dental disease process. Plaque is a soft, sticky layer of bacteria (germs). It forms on all tooth surfaces every day. Plaque causes two dental diseases: tooth decay and periodontal (gum) disease. Dental decay is a bacterial disease process that results in tooth discoloration, holes in the enamel surface, and often pain for the child. With periodontal disease, the accumulation of plaque along the gumline provides a constant, localized source of acid creating inflammation of the gums that can spread to the underlying bone.

Second graders are experiencing the natural loss of teeth. The premature loss of primary teeth due to decay can affect speech development, spacing of permanent teeth, chewing ability, and the self-image of children. Primary teeth need to be healthy and remain in the mouth until the permanent teeth push them out. It is very important for young children to develop good oral health habits to prevent dental diseases and keep that healthy smile.

#### Leading Questions:

- Do you have plaque germs in your mouth?
- Where do you think we could find germs on our body?
- How do you clean the plaque germs off of teeth and gums?
- Why do you think we lose our baby teeth?
- Should we lose our teeth more than once?
- What happens to your teeth and gums if you don't remove the plaque germs?

## Possible activities to assess students' knowledge/skills:

- 1. The teacher uses a disclosing tablet on his/her teeth to show plaque.
- 2. Looking in a mirror have the children count how many teeth they have lost.
- 3. Calculate (math activity) how many teeth they have lost and gained.
- 4. With clean hands, have students scratch a front tooth with their fingernail to see and feel plaque.
- 5. Demonstrate on a mouth model where they need to brush to remove the plaque.

# Estimated time for presentation

A minimum of 10 minutes to a maximum of 20 minutes is needed depending on the number of activities included.

# <u>Resources</u>

- "Your Child's Teeth" parent brochure and "How To Brush" brochure from Division of Dental Health, Virginia Department of Health: <u>www.vahealth.org/teeth</u>



# Second Grade

#### <u>Lesson Plan</u> – #4 Identify the roles of oral health professionals met during a dental visit. (SOL. 2.4a)

**Standard of Learning 2.4** – The student will recognize the influence that health resources and professionals have on personal health. Key concepts/skills include: a) health care professionals, resources, and services

**Discussion** information for the presenter – Regular dental and physical examinations are needed to monitor growth and development in children. With regular dental office visits a child will become familiar with the roles of each oral healthcare provider.

The dentist is the licensed restorative specialist in the office. He/she will diagnose and treat dental diseases. For example, the dentist may fill a cavity or repair a chipped tooth. The dental hygienist is the licensed prevention specialist. He/she will clean deposits (hardened plaque) and stains from the teeth. Dental hygienists may also take x-rays, place dental sealants and place fluoride on teeth. The dental assistant may be certified and usually works directly with the dentist to assist in the dental procedures. The dental laboratory technician is also an important part of the dental team. Lab technicians are trained to make crowns and dentures for patients. Some technicians work in the dental office while others may have their own dental lab. Dental professionals may also visit your school to talk about protecting smiles, developing good oral hygiene habits and improving total health.

#### Leading questions:

- Who has been to a dental office?
- Who did you meet at the dental office?
- What did the dentist do during your visit?
- What did the dental hygienist do during your visit?
- What did the dental assistant do during your visit?
- Is there a team member that you may not see during your dental visit?

# Possible activities to assess students' knowledge/skills:

- 1. Have a play about what each dental team member does when you have a visit.
- 2. Write a story about your visit to the dentist telling what each team member does.
- 3. Write about one team member you would like to be some day and discuss why.
- 4. Schedule a field trip to a local dental office or dental clinic.
- 5. Play a matching game for roles of each dental team member.

# Estimated time for presentation

A minimum of 10 minutes to a maximum of 30 minutes is needed depending on the number of activities included.

#### <u>Resources</u>

-Visit local private dental offices or community dental clinics

-Coloring books about visiting the dentist from Division of Dental Health, Virginia Department of Health: <u>www.vahealth.org/teeth</u>



# Second Grade

#### <u>Lesson Plan</u> - #5 Develop an awareness of the overall health benefits associated with regular dental check-ups. (SOL 2.2c)

**Standard of Learning 2.2** – The student will explain that personal health decisions and health habits influence health and well-being throughout life. Key concepts/skills include:

c) the need for regular health check-ups and screenings

**Discussion information for the presenter** – Regular dental and physical examinations are needed to monitor growth and development in children. Dental decay is the most prevalent chronic disease in young children. The goal of routine dental visits is to prevent and detect dental disease before it becomes painful and affects overall health. The dental team will evaluate the loss of primary teeth and the eruption of permanent teeth. X-rays may be taken to further evaluate the development and health of teeth. Preventive procedures such as cleaning, fluoride treatments and dental sealants may be provided during a routine dental visit. A dental sealant is a plastic filling material put on the chewing surfaces of molars to prevent food and bacteria from getting trapped in the grooves. Instruction on toothbrushing and care of gums will be included. If needed, restorative care will be provided by the dentist to fill cavities.

#### Leading Questions:

- Who has been to a dental office?
- What happened at your dental visit?
- Has anyone had a dental sealant put on a tooth?
- Has anyone had a fluoride treatment? What was it like?
- How often should you visit your dental office?
- What happens if you don't visit the dentist regularly?

# Possible activities to assess students' knowledge/skills:

- 1. Show the American Dental Association video "Dudley Visits the Dentist" www.ada.org
- 2. Draw the smile of a person who has visited the dentist regularly and has healthy teeth; then draw the smile of someone who has not been to the dentist and has cavities.
- 3. Have a dental professional visit the classroom and show how dental sealants are placed on teeth, or have them bring a dental x-ray and viewbox to show erupting teeth or a tooth with a cavity.

# Estimated time for presentation

A minimum of 10 minutes to a maximum of 30 minutes is needed depending on the number of activities included.

# **Resources**

- "Seal Away Tooth Decay" brochure from Division of Dental Health, Virginia Department of Health: <u>www.vahealth.org/teeth</u>

- Coloring books about visiting the dentist from Division of Dental Health, Virginia Department of Health: <u>www.vahealth.org/teeth</u>


## Second Grade

### <u>Lesson Plan</u> – #6 Describe the effects on the body of using drugs, alcohol and tobacco products. (SOL 2.2b)

**Standard of Learning 2.2** – The student will explain that personal health decisions and health habits influence health and well-being throughout life. Key concepts/skills include:

b) the addictive nature of drugs, alcohol, and tobacco

**Discussion information for the presenter** – Life is about choices. We want children to have good oral health and to learn that the choices they make now affect their health today and in the future. Healthy habits that begin early in life are more likely to be maintained in adulthood. Choices for good oral health include daily brushing and flossing and choosing healthy foods and beverages on most days. The choice not to use drugs, alcohol, and tobacco assists in better oral health and overall health. The risk for oral cancer and other cancers increase with the use of alcohol and tobacco.

#### Leading questions:

- Do you know anyone who uses tobacco products?
- Do you know what different tobacco products look like?
- Do you think using tobacco is a healthy habit?
- Will you have good health when you are a grown-up?

## Possible activities to assess students' knowledge/skills:

- 1. Draw a picture of a healthy choice for healthy smiles.
- 2. Identify at least 3 parts of the body affected by tobacco use.

## Estimated time for presentation

A minimum of 10 minutes to a maximum of 30 minutes is needed depending on the number of activities included.

### <u>Resources</u>

-"Think Before You Chew" brochure from Division of Dental Health, Virginia Department of Health: <u>www.vahealth.org/teeth</u>

- Consumer information on oral health and tobacco from American Dental Association: <u>www.ada.org</u>



# Third Grade Module

Oral Health Education Curriculum

This third grade module includes two lesson plans. As a result of implementing this module the student will accomplish the following objectives:

- Develop an awareness of how the nutrient content of foods and beverages affects body systems and can improve personal health. (SOL 3.1a, 3.4 a,b,c)
- Describe the effects of nicotine products, including smokeless tobacco products, on body systems and the oral cavity. (SOL 3.3c)



Third Grade

<u>Lesson Plan</u> – #1 Develop an awareness of how the nutrient content of foods and beverages affects body systems and can improve personal health. (SOL 3.1a, 3.4 a,b,c)

**Standard of Learning 3.1** – The student will explain that health habits impact personal growth and development. Key concepts/skills include: (a) the food choices based on nutritional content

**Standard of Learning 3.4** – The student will demonstrate the ability to use health information to improve personal health. Key concepts/skills include:

(a) the use of health services and agencies to gain information

(b) the ways in which health care has improved as a result of technology

(c) the use of a variety of print, audiovisual, and electronic media resources

**Discussion information for the presenter** - Choosing healthy foods and beverages on most days is important for oral health and total health. Eating a variety of foods from all food groups provides the best opportunity to get the nutrients needed for growth and development. The food groups include: grains, vegetables, fruits, milk products, meat and beans. Children and adults need to mix up choices within each food group each day. Nutrient rich foods provide larger amounts of vitamins and minerals per serving size. Whole grain breads and cereals provide more nutrients than processed white flour foods. Eat more dark green and bright orange fruits and vegetables instead of the iceberg lettuce salads. Whole fresh fruits pack more nutrition, more fiber and less calories than filling up on fruit juices. Try including lower fat milk products and cheeses during the week. Choose lean protein dishes that are not fried and don't have visible fat. Varying your protein foods includes trying beans, peas, nuts and seeds.

Nationally childhood overweight and obesity have increased two fold over the past two decades. We know that obesity prevention focuses on energy balance – calories consumed versus calories expended. Eating foods containing more sugar and more fat can contribute to extra weight and less nutritional content for proper growth. Hidden sugars found in many beverages can contribute to more dental decay. Inadequate servings of milk products may impact bone and tooth development. Children require snacks to balance increased physical activity, and healthy between meal foods can be offered. Learning to read food labels can be an interesting activity for children. Comparing favorite cereal box labels could be a classroom project. Labels indicate calories per serving as well as nutrient content. Just reading the list of ingredients on a label can begin a classroom discussion.

Establishing healthy eating habits early in life increases the likelihood of healthy mouths and bodies. Children like to eat out in fast food restaurants but they need skills in making smart choices. Learning about the nutritional content of fast food items and making better choices can be a healthy step. Learning about skipping the french fries or choosing a smaller size portion are habits to develop. Even sharing a dessert selection instead of eating the whole serving is a positive step. Being aware of nutritional content of food choices is a foundation for lifelong improved health.

#### Leading questions:

- Do you ever read the food labels on boxes or cans?
- What are the different food groups?
- What are some healthy beverages for teeth and bodies?
- How can you find out the nutrient content of foods in grocery stores?
- What is your favorite after school snack?
- What do television commercials tell you about food/beverage choices?

### Possible activities to assess students' knowledge/skills:

- 1. Have students keep a two-day food record, then discuss how many food groups have been chosen.
- 2. Have a tasting party with nutrient dense foods from the different groups.
- 3. Discuss what foods/beverages you can find in vending machines.
- 4. Bring a food label from a favorite food and discuss the nutrient content.
- 5. Have students write down beverages that are in their own homes and write down the sugar content. (4 grams = 1 tsp. sugar)
- 6. \*Have beanbags made to look like fruits and vegetables and have a tossing game or relay.
- 7. Use food pictures and have students categorize more nutritious choices from less nutritious choices. (\*divide students in two groups and have a relay with the winning team sorting out the pictures the quickest)

\*For total wellness and obesity prevention we encourage teachers to consider movement with some of the learning activities.

#### Estimated time for presentation

A minimum of 10 minutes to a maximum of 30 minutes is needed depending on the number of activities included.

## <u>Resources</u>

-"Smile for Good Health" and "A Healthy Diet is Something to Smile About" – brochures from the Division of Dental Health/VDH: <u>www.vahealth.org/teeth</u>

-National Dairy Council: www.nationaldairycouncil.org

-American Dental Association: www.ada.org

-American Dental Hygienists' Association: www.adha.org



# Third Grade

#### <u>Lesson Plan</u> – #2 Describe the effects of nicotine, including smokeless tobacco products, on body systems and the oral cavity. (SOL 3.3c)

**Standard of Learning 3.3** – The student will identify the effects of drug and inhalant experimentation and alcohol and tobacco use on personal health. Key concepts/skills include:

(c) the effects of nicotine, alcohol, and other drugs on body systems

**Discussion information for the presenter** – Tobacco products come in various forms including cigarettes, chewing tobacco, snuff and cigars. These products either produce smoke which can be inhaled, or the tobacco product is held in the mouth as with chewing tobacco. The active ingredient in the tobacco products is nicotine which is an addictive substance. The body's physical addiction to nicotine is characterized by cravings and the inability to stop using the tobacco easily. Experimenting with addictive substances can grow into a lifetime habit. Nicotine stimulates the body and can speed up the heartbeat. Other toxic chemicals are found in tobacco products, including arsenic and ammonia. Over time the chemicals in tobacco may cause coughing and breathing difficulty as lungs are affected. In the mouth, inhaled smoke and chemicals can cause a loss of oxygen and nutrients to the teeth and gums. Obvious staining and yellowing of teeth occurs with tobacco products and there can be a loss of taste and smell. Tobacco use increases the risk for periodontal (gum) disease. A more serious health consequence of tobacco use is the increased risk for lip, mouth and throat cancers.

#### Leading questions:

- How do students learn about tobacco products?
- What body systems do you think tobacco products affect?
- Do you know anyone who smokes? What do their teeth look like?
- Where do you see tobacco products advertised?
- What other senses tell you someone is smoking other than seeing them smoke?

## Possible activities to assess students' knowledge/skills:

- 1. Write a story about someone you know who uses tobacco products and describe if their teeth or bodies have been affected.
- 2. Make a list of health professionals who could answer questions about tobacco use and its health effects.
- 3. Find a newspaper article or magazine article that discusses tobacco use/health risks.

## Estimated time for presentation

A minimum of 15 minutes to a maximum of 30 minutes is needed depending on the number of activities included.

#### <u>Resources</u>

-"Think Before you Chew" brochure from the Division of Dental Health/VDH: <u>www.vahealth.org/teeth</u>

-American Dental Association: <u>www.ada.org</u>

-American Dental Hygienists' Association: www.adha.org

-National institute of Dental and Craniofacial Research: www.nidcr.nih.gov

# Third Grade Module – Sample Evaluation Questions

- 1. Which of the following nutrition information can you find on food labels?
  - a. calories per serving
  - b. amount of total fat
  - c. what sugars are in the food
  - d. all of the above
- 2. An example of a nutrient rich food would be:
  - a. potato chips
  - b. whole wheat bread
  - c. celery
  - d. sugar free soda
- 3. When you are really thirsty the best beverage to drink is:
  - a. milk
  - b. fruit punch
  - c. water
  - d. sugar free soda
- 4. If you do not eat a lot meat you can still get protein in your diet by eating which food?
  - a. oranges
  - b. lettuce
  - c. carrots
  - d. beans
- 5. If you drink a lot of fruit juice every day you might have:
  - a. more cavities because of the fruit sugar
  - b. less cavities because juice is healthy
  - c. more calories than you need
  - d. a and c
  - e. b and c
- 6. The substance that is addictive in tobacco products is:
  - a. nicotine
  - b. smoke
  - c. flavoring
  - d. none of the above

- 7. Smoking can cause:
  - a. yellow teethb. coughingc. bad breath

  - d. mouth cancer
  - e. all of the above



# Fourth and Fifth Grade Module

Oral Health Education Curriculum

## This fourth and fifth grade module includes four lesson plans.

As a result of implementing this module the student will accomplish the following objectives:

- Identify the components of a balanced meal and describe carbohydrates and their impact on oral health. (SOL 4.1b, d; 5.2b)
- Develop an awareness of community health resources available to help prevent oral disease and improve total health. (SOL 4.5a,b ; 4.6a ; 5.4a,b ; 5.5c,d,e,f)
- Describe the causes of dental diseases including the role of bacterial plaque, and describe how dental diseases can be prevented. (SOL 4.4b,d ; 5.2a)
- Identify laws related to the purchase of tobacco products and describe the effects of tobacco on oral health and the body. (SOL 4.3d; 5.3a)



# Fourth and Fifth Grades

#### <u>Lesson Plan</u> – #1 Identify the components of a balanced meal and describe carbohydrates and their impact on oral health. (SOL 4.1b,d ; 5.2b)

Standard of Learning 4.1 – The student will explain how nutrition affects personal health and academic achievement. Key concepts/skills include:
b) the components of a balanced meal
d).the impact of growth and development

**Standard of Learning 5.2** - The student will demonstrate responsibility for developing personal health habits and practicing the behaviors that promote an active, healthy lifestyle. Key concepts/skills include: b) the connection between dietary guidelines and weight management

**Discussion information for presenter** – Healthy pain-free teeth are needed to chew nutritious foods. A student can also concentrate on schoolwork and miss less school time if they stay cavity-free. Healthy diets can help prevent dental diseases and contribute to overall health. A healthy diet includes foods from all of the food groups: grains, vegetables, fruits, milk products, meat and beans. Mix up food choices within the food groups each day and select nutrient rich foods. Go for the bright colored fruits and vegetables to supply needed vitamins and minerals. Our diets need to supply enough protein, carbohydrate and fat on a daily basis to promote growth and development.

Carbohydrates are nutrients that supply energy for the body and keep the mind and muscles working properly. Carbohydrates are grouped into simple and complex categories. Complex carbohydrates include fruits, vegetables and whole grains and should be eaten more frequently. They provide fiber and are absorbed by the body more slowly to give longer lasting energy. The simple carbohydrates include table sugar (sucrose), honey, and fruit sugars (fructose). The body uses these carbohydrates more rapidly to give immediate quick bursts of energy. The simple carbohydrates also play a role in causing dental decay. Bacterial plaque in the mouth uses the sugars left on teeth to produce an acid that is deposited on the tooth enamel. This acid demineralizes the tooth surface and a cavity begins. To decrease the risk for tooth decay, sugary foods and beverages need to be limited. The **greater frequency** with which teeth are exposed to both bacteria and

carbohydrates the more likelihood that new cavities can begin. A dessert food eaten with a meal is less harmful to teeth than snacking on sugary foods during the day when you are less likely to brush. Having optimum fluoride for teeth with fluoridated water, fluoride toothpaste and fluoride rinses/gels can help strengthen the enamel and protect against these acid attacks.

Another benefit of eating more fruits and vegetables is that they are filling and usually contain less calories. Prevention of childhood obesity is accomplished through energy balance with calories consumed versus calories expended. Movement and physical activity are important partners to balanced nutrition in maintaining a healthy body weight. Teachers can be positive role models by practicing health habits children can observe. Be supportive and encourage physical activities that children can enjoy. Avoid using candies or foods as rewards in the classroom and limit simple carbohydrates for classroom parties. Being an advocate for healthier children is important for oral health and total well-being.

#### Leading questions:

- How can you judge if you are eating a balanced meal?
- What are some foods/beverages that contain simple sugars?
- How can soda pop contribute to dental decay?
- How can you find out if foods/beverages contain simple sugars?
- What physical activities do you do after school is over?
- How can we include small amounts of movement everyday?

## Possible activities to assess students' knowledge/skills:

- 1. Have students keep a three-day food record and include a weekend day.
- 2. Have students write a short paper about visiting a fast food restaurant and analyze meals to see if they represent all of the food groups.
- 3. Discuss favorite food/beverage choices from vending machines or convenience stores.
- 4. Have students bring in food labels from home and discuss how these foods fit into a balanced diet.

## Estimated time for presentation

A minimum of 15 minutes to a maximum of 45 minutes is needed depending on the number of activities included.

#### **Resources**

-"Smile for Good Health" and "A Healthy Diet is Something to Smile About" – brochures from the Division of Dental Health/VDH: <u>www.vahealth.org/teeth</u>

-National Dairy Council: www.nationaldairycouncil.org

-American Dental Association: www.ada.org

-American Dental Hygienists' Association: www.adha.org



# Fourth and Fifth Grades

### <u>Lesson Plan</u> – #2 Develop an awareness of community health resources available to help prevent oral disease and improve total health. (SOL 4.5a,b ; 4.6a ; 5.4a,b ; 5.5c,d,e,f)

**Standard of Learning 4.5** – The student will access and use health resources to improve personal and family health. Key concepts/skills include:

a) the use of health care agencies, printed materials, broadcast media, Internet, and audiovisual materials

b) identification of accurate and inaccurate health information

**Standard of Learning 4.6** – The student will evaluate his/her role in solving community health problems. Key concepts/skills include: a) personal responsibility for exhibiting healthy practices within the school and community setting

**Standard of Learning 5.4** – The student will critically evaluate how print media, broadcast media and Internet technology influence perceptions of health information, products, and services. Key concepts/skills include:

a) strategies for validating health information

b) tools for the critical evaluation of advertisements and promotions

**Standard of Learning 5.5** – The student will explain how peers, families, and community groups work together to build a healthy community. Key concepts/skills include:

- c) promotion of the value of community health and wellness
- d) examination of community health issues
- e) development of community health projects
- f) promotion of volunteerism and community service

**Discussion for the presenter** – Routine dental exams are needed for children and adults to attain optimum oral health. Most communities offer access to dental care through private dental offices and some local health departments. Rural areas may have fewer dental providers. Additional resources for dental care include community health centers and dental/dental hygiene education programs. Consumer dental information is available via professional websites including the American Dental Association and the American Academy of Pediatric Dentistry.

Other community agencies offer oral health information such as the local chapter of the American Cancer Society. This organization is an excellent resource for information on the health hazards of smokeless tobacco products and screening for oral cancer. Local dental and dental hygiene professional components often sponsor community wellness events during the month of February, National Children's Dental Health Month. Promotion of the link of oral health to overall health is included in these activities. Dental health month poster or essay contests may be an option for schools. Students wanting to be involved in community service events can contact their local dentist about the possibilities. Volunteering to help at a wellness event may influence career choices later in life for the students.

## Leading questions:

- Where does your family go for dental care?
- Have you ever visited a local health department?
- Have you ever volunteered to help with a health/wellness event?
- Why do you think it is important to be involved in your community/neighborhood as you get older?
- How do volunteers benefit the community?

## Possible activities to assess students' knowledge/skills:

- 1. Have students go on a field trip to visit a local health department and learn about the health services provided
- 2. Give students an Internet assignment to the American Dental Assoication website to research an oral health topic
- 3. Have students select a local newspaper article to report on regarding a community health resource or health issue
- 4. Have students look in the local phone book and make a list of the number of dental providers/local clinics that offer dental care

#### Estimated time for presentation

A minimum of 15 minutes to a maximum of 45 minutes is needed depending on the number of activities included.

#### Resources

-American Dental Association: www.ada.org

-American Dental Hygienists' Association: www.adha.org



Fourth and Fifth Grades

#### <u>Lesson Plan</u> – #3 Describe the causes of dental diseases including the role of bacterial plaque, and describe how dental diseases can be prevented. (SOL 4.4b,d ; 5.2a)

**Standard of Learning 4.4** – The student will demonstrate an understanding of health concepts and behaviors that prevent illness of self and others. Key concepts/skills include:

b) the spread of germs (viruses, bacteria, and fungi)

d) the importance of early detection of health problems

**Standard of Learning 5.2** – The student will demonstrate responsibility for developing personal health habits and practicing the behaviors that promote an active, healthy lifestyle. Key concepts include:

a) the relationship between health promotion and disease prevention

**Discussion for the presenter** – Dental decay is the most prevalent chronic disease of young children. Routine dental exams with x-rays are important for early detection of cavities. Bacterial plaque is one of the factors in the decay process. Plaque bacteria left on teeth in the presence of carbohydrates can create acid on the tooth enamel. The acid demineralizes the tooth surface and a cavity begins. Good daily oral hygiene is essential for removing as much of the bacteria as possible. Plaque forms on all surfaces of the teeth and gums daily and is also the causative agent in periodontal (gum) disease. The accumulation of plaque along the gumline provides a constant, localized source of acid creating bleeding and redness of the gums. Gums that routinely bleed during brushing are an early sign of gum disease and this condition should be checked by a dentist.

Daily toothbrushing and flossing by children are recommended for plaque and food removal. Toothbrushing techniques can vary but the goal is to clean all tooth surfaces, inside and out, front and back. Using a soft bristle toothbrush, a rolling motion with the wrist allows for rolling down on top teeth and rolling up on bottom teeth. Some would describe this as "brushing in the direction that the teeth grow". The chewing surfaces of back teeth need to be cleaned also as these "wrinkles" trap food and bacteria. Secondly, the gumline needs to be gently cleaned with short back and forth brushing strokes. Encourage children to "tickle" their gums as they brush. Brushing should be done at least two times a day with a small amount

of fluoride toothpaste. Gently brushing the top of the tongue is another way to reduce the amount of bacteria in the mouth,

The toothbrush cannot adequately remove bacterial plaque from in between permanent teeth, so dental flossing is recommended daily for older elementary school children. By fifth grade some children will have more posterior molars coming in and dental floss is needed to remove food and plaque bacteria from in between the teeth and under the gums. There are many varieties of dental floss available. Usually waxed floss is the best for flossing beginners. Children need a demonstration and instructions on how to floss correctly and how to avoid injuring gums. The floss is gently guided between teeth and then the floss is wrapped against the side of the tooth as the floss is slid under the gumline into the space between the gum and tooth. Use an up and down movement against the side of the tooth to remove plaque bacteria. Small floss holders are available to assist children with dental flossing. See the resource section for more detailed information on using floss.

Learning these basic oral hygiene techniques will be a healthy habit for a lifetime.

#### Leading questions:

- What do you do everyday to take care of your teeth and gums?
- Have you ever used dental floss?
- Why do we brush our teeth and gums?
- What causes tooth decay?

#### Possible activities to assess students' knowledge/skills:

- 1. Have the students write an essay about why regular dental visits are important.
- 2. Have students interview a dentist or a dental hygienist and ask what preventive steps they recommend for healthier mouths.
- 3. Give the students an Internet assignment to review oral hygiene recommendations on the American Dental Association website.
- 4. Have students visit a drug store and report on how many kinds of floss there are and the types of floss holders.

#### Estimated time for presentation

A minimum of 15 to a maximum of 45 minutes is needed depending on the number of activities included.

## <u>Resources</u>

-American Dental Association: www.ada.org

-American Dental Hygienists' Association: www.adha.org

-"How to Brush" and "How to Floss" - brochures from the Division of Dental Health/VDH: <u>www.vahealth.org/teeth</u>

- Kid-friendly flossers:

- Mr. Flossman: <u>www.e-zfloss.com</u>
- Dentek's Kids' Flosser: <u>www.usdentek.com</u>
- Oral B Stages Kids' Flossers: <u>www.oral-b.com</u>



# Fourth and Fifth Grades

#### <u>Lesson Plan</u> – #4 Identify laws related to the purchase of tobacco products and describe the effects of tobacco on oral health and the body. (SOL 4.3d ; SOL 5.3a)

**Standard of Learning 4.3** – The student will describe and evaluate the effects of alcohol, inhalants, tobacco, and drug use on the family and community. Key concepts/skills include:

d) laws related to illegal alcohol and tobacco use

**Standard of Learning 5.3** – The student will analyze the risks of dependence and addiction associated with the use of alcohol, tobacco, inhalants, and other drugs on the systems of the body. Key concepts/skills include:

a) the effects on the integrated functioning of the body's systems

**Discussion for the presenter** – Tobacco companies play a large role in the advertising of tobacco products. Students are exposed to tobacco product information well before the legal age of purchasing those same products. Advertising of tobacco products is accomplished through cinemas, print ads and music videos. These media can influence the behaviors chosen by adolescents. Students need to know the legal implications of underage purchasing of tobacco products as well as the potential health effects with their use.

There are short and long term effects of using tobacco products. The addictive substance in cigarettes and smokeless tobacco products is nicotine. Nicotine stimulates the body and can speed up the heartbeat. Other toxic chemicals are found in tobacco products including arsenic and ammonia. Over time the chemicals in tobacco may cause coughing and breathing difficulty as lungs are affected. The inhaled smoke can cause a loss of oxygen and nutrients to the teeth and gums. Teeth usually appear stained and yellow with tobacco use and there can be a loss of taste and smell. Smokers may complain of bad breath and a burning tongue. With tobacco use, there is an increased risk for periodontal (gum) disease that can result in tooth loss. A more serious health consequence of tobacco use is the increased risk for lip, mouth and throat cancers. Students can learn how to do an oral cancer self-exam that promotes early detection of any changes with the oral tissues. See the resource list for more detailed information on how to do an oral cancer self-exam. Awareness of the addictive nature of

tobacco products and the potential health risks can promote healthier lifestyle choices for total wellbeing.

#### Leading questions:

- What's the legal age for purchasing tobacco products?
- Are there consequences for a store clerk who sells tobacco products to underage youth?
- When you see ads for tobacco products how does affect you?
- How might you respond to an older friend how is offering you tobacco products?

#### Possible activities to assess students' knowledge/skills:

- 1. Role play a possible peer pressure situation involving purchasing tobacco products.
- 2. Have a discussion in small groups about responses to being offered tobacco products by friends.
- 3. Find a printed advertisement for tobacco products that is appealing to youth.

## Estimated time of presentation

A minimum of 15 minutes to a maximum of 45 minutes is needed depending on the number of activities included.

#### <u>Resources</u>

-"Think Before you Chew" and "Oral Health – Self-Exam for Oral Cancer" brochures from the Division of Dental Health/VDH: <u>www.vahealth.org/teeth</u>

-American Dental Association: www.ada.org

-American Dental Hygienists' Association: www.adha.org

-National institute of Dental and Craniofacial Research: <u>www.nidcr.nih.gov</u>

## Fourth and Fifth Grade Module – Sample Evaluation Questions

- 1. The best way to eat a healthy diet is to:
  - a. to eat foods from all of the food groups
  - b. choose the same healthy foods to eat every day
  - c. only eat vegetables out of the can
  - d. avoid most dairy foods because of calories
- 2. The foods which give our bodies energy are called:
  - a. carbohydrates
  - b. fats
  - c. milks
  - d. meats
- 3. If you eat sugary foods the best way to have them is to:
  - a. eat a little bit of sugar all day long
  - b. only have sugar in sodas
  - c. eat a sweet treat once a day after a meal
  - d. brush teeth before eating the sweets
- 4. To make a cavity in the mouth you need to have:
  - a. a tooth and plaque germs only
  - b. a tooth and sugar only
  - c. a tooth , plaque germs and sugar
  - d. none of the above
- 5. A healthy body needs physical activity:
  - a. once a week
  - b. everyday
  - c. two times a week
  - d. three times a week
- 6. For good dental health we need to:
  - a. see the dentist every two years
  - b. clean our mouths everyday
  - c. see the dentist at least once a year
  - d. b and c
  - e. a and c

- 7. To prevent tooth decay we need to:
  - a. brush teeth at least two times every day
  - b. eat sugary foods less often
  - c. brush teeth at least four times every day
  - d. b and c
  - e. a and b
- 8. To have a clean and healthy mouth we need to:
  - a. brush and floss each day
  - b. brush the top of the tongue gently
  - c. "tickle" the gums with the toothbrush
  - d. a and b
  - e. a, b and c
- 9. Long term health effects of using tobacco products could include:
  - a. more risk for gum disease
  - b. lung/ breathing problems
  - c. more risk for mouth cancer
  - d. all of the above