

# HOTT Activities

**Project Name:** Dental Jeopardy

**Date:** 5-6-08

**Grade Level:** 6-8

**Standard:** *See Below*

**Professions:** Dentist, Dental Hygienist, and Dental Assistant

**Purpose:** The students will become more interested in the field of dentistry by learning about opportunities and prevention.

**Materials needed:**

- Chalk or white board, chalk or dry erase markers, eraser, stop watch or watch with second hand
- If possible, prizes like toothbrushes, floss, toothpaste, etc. to be handed out to the winner of the game or the entire class for participating.

**Duration:** 45 minutes

**Instructions:**

**A. Set Up**

1. Make columns on a chalk or white board with selected headings.
2. Identify who will be the time keeper, a score keeper, and a watcher. (May combine jobs as needed.)
3. Divide students into 5 teams. You may choose teams to be members in the row or count off students in order to make groups even.
4. Once teams are selected, organize the groups by assigning each group a location in the classroom. For example, you may place "Team 1" in the back right corner of the room, "Team 2" in the front right corner of the room, "Team 3" in the center of the room, "Team 4" in the back left corner of the room, and "Team 5" in the front left corner of the room.
5. For score keeping purposes, write "Team 1," "Team 2," etc. on the board. One student from each team is chosen as captain. The captain will select a topic, a point value and will speak for the group. Once the captain is chosen, place the name of the captain underneath the team they belong to.

## B. Establish Rules:

1. The "Team 1" captain chooses a topic and point value first.
2. After a team chooses a question, the score keeper will erase the point value off the chalk or white board. If the team gets the question correct the score keeper will add the points to the team with the correct answer. (You might choose to take away points for wrong answers.)
3. The host asks the question. Do not allow students to respond until after the question has been asked completely.
4. The team captain will give the answer after receiving input from teammates. (Answers will not be in the form of a question.) Allow 30 seconds for students to answer. Try to keep track of the time, so students do not misuse the time given for the activity.
5. If the team gets the question right, then the next team captain chooses the next topic and question point value. For example, if Team 1 chooses a topic and answers correctly, the captain for Team 2 will decide the next topic and point value.
6. If a team responds with a wrong answer, the host continues until one of the next teams raises their hand(s) to answer the question. The watcher looks for the team who raises their hand(s) first. If no one raises their hand to answer, give the answer to the class. Then continue to the next team.
7. Whether an answer is correct or incorrect, the order of choosing a topic and point value starts with Team 1 then continues to Team 2 until Team 5. Once Team 5 has chosen a topic and point value, Team 1 chooses. Continue until the point values are completely erased.
8. If no one answers the question correctly, the next team captain chooses a topic and point value. For example, if "Team 1" answers their question incorrectly and no other team can correctly answer the question then "Team 2" chooses a topic and point value.
9. The host will have the decision if a variation of the response is valid.
10. The winner is the team that gets the most points.

Adaptations: None

## References:

- South Dakota Office of Rural Health
- Crest [www.crest.com](http://www.crest.com)
- Colgate [www.colgate.com](http://www.colgate.com)
- Oral-B [www.oralb.com](http://www.oralb.com)
- American Dental Association

## Content Standard Alignment

### Language Arts Standards

**LVS = Listening, viewing, & speaking; W = Writing; R = Reading)**

6-8.LVS.1.1

6.LVS.1.3

7.LVS.1.4

8.LVS.1.2

### Math Standards

**(A = Algebra; G = Geometry; M = Measurement; N = Number Sense; S = Statistics and Probability)**

### Science Standards

**(N = Nature of Science; P = Physical Science; L = Life Science; E = Earth & Space Science; S = Science, Technology, Environment & Society)**

7.L.1.3.

### Social Studies Standards

U.S. History	World History	Geography	Civics	Economics

Denttal

Jeopardy

Oral Piercing	Tobacco	Cleaning In Between	Brush Your Teeth	Miscellaneous	The Field of Dentistry
10	10	10	10	10	10
30	30	30	30	30	30
50	50	50	50	50	50
100	100	100	100	100	100
200	200	200	200	200	200

Produced By:

South Dakota Office of Rural Health  
 South Dakota Dental Association

## Game Board

## Score Board Example

*Team 1*  
 Thomas

*Team 2*  
 Susan

*Team 3*  
 Jake

*Team 4*  
 Lucas

*Team 5*  
 Laura

Questions:

Oral Piercing	Tobacco	Cleaning In Between	Brush Your Teeth	Miscellaneous	The Field of Dentistry
Who should a person contact if they encounter problems with their piercing?	Smoking tobacco increases your chance for what disease?	Why is it important to floss your teeth?	How often should you brush your teeth?	How often should you go to the dentist?	If you enjoy delicate work that involves the manipulation of substances by molding, what occupation in dentistry is right for you?
What disease may be caused from the bacteria involved in periodontal disease?	What percent of people who suffer from mouth cancer and some types of throat cancer have used tobacco?	What is the recommended length of floss in inches to use when flossing?	In months, how often should you change your toothbrush?	What is the most important thing you can do to maintain good oral health?	How many years of school does a dentist need?
A lip piercing increases the chance of what oral health condition?	Where can cancer form due to the use of smokeless tobacco?	When should you floss your teeth?	What kind of bristles should your tooth brush have?	What are the microorganisms called that cause most oral health problems?	What is the job outlook for dental hygienists through the year 2012?
The National Institute of Health links oral piercing as a possible risk factor in transmitting what blood borne diseases?	How long does it take for chewing tobacco to begin to cause gum disease and precancerous lesions?	What percent of tooth surface remains untouched if you do not floss?	How long should you brush your teeth?	This compound strengthens developing teeth and helps to prevent decay	What is the job title of the person who obtains your dental records?
What are three risks involved with an oral piercing?	What are three effects of tobacco use on your dental health?	What letter in the alphabet should you shape the floss as when flossing?	What three beverages increase your chances of stained teeth?	What is another name for hardened plaque that can only be removed by your dentist or dental hygienist?	How many dental schools are there in the United States?

Oral Piercing	Tobacco	Cleaning In Between	Brush Your Teeth	Miscellaneous	The Field of Dentistry
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Their dentist	Gum disease	To remove plaque between teeth where a toothbrush cannot reach	Twice a day – in the morning and before bed.	Twice a year	Dental Laboratory Technician
Cardiovascular disease	90%	18 inches	At least every three months or when the toothbrush looks worn	Floss and brush your teeth	High school diploma, three or four years of pre-dental courses, and four years of dental education
Gum recession or gums shrinking back from the teeth; longer people wear jewelry the worse the recession becomes	Cheek, gums and inner surface of the lips	Once a day; before you brush your teeth	Soft	Plaque	Employment is expected to grow much faster than the average; one of the fastest growing occupations
Hepatitis	Three to four months	40%; or 7 teeth	At least 2 minutes	Fluoride	Dental Assistant
3 of the 6: cracked or chipped teeth, nerve damage, severe bleeding, choke on barbells or hoops, swelling, and infection	3 of the 6: stains on your teeth/tongue, bad breath, build-up of tartar, receding gum line, and delay healing	The letter "C"	Coffee, tea, and red wine	Tartar	55

Answers:

The following is a list of the questions and the amount the answer is worth. The comment after the answer is optional, but will allow you to elaborate on the topic in order to inform the students about more detailed information.

## Oral Piercing Category:

**10:** Who should a person contact if they encounter problems with their piercing?

**Answer:** A person should contact their dentist.

**Comment:** Their dentist will be able to recognize damage and recommend possible treatment.

**30:** What disease may be caused from the bacteria involved in periodontal disease?

**Answer:** The bacteria involved in periodontal disease correlates with cardiovascular disease.

**Comment:** Oral piercing carries a risk of endocarditis, an inflammation of the heart valves or tissues. The wound created during oral piercing provides an opportunity for oral bacteria to enter the bloodstream, where they can travel to heart.

**50:** A lip piercing increases the chance of what oral health condition?

**Answer:** Gum recession

**Comment:** When a lip piercing rests against your gums, there is erosion over time. Just like water dripping on rock can dig a hole over years, a piece of metal rubbing on your gums can rub a hole in your gums, exposing the roots of your teeth. Gum recession is usually permanent and is difficult to repair.

**100:** The National Institute of Health links oral piercing as a possible risk factor in transmitting what blood borne diseases?

**Answer:** Hepatitis

**Comment:** Oral piercing has been identified by the National Institute of Health as a possible risk factor in transmission of hepatitis B, C, D, and G. Although no cases of tetanus or tuberculosis transmission have been reported with regard to oral piercing, both have been documented in association with ear piercing.

**200:** What are three risks involved with an oral piercing?

**Answer:** A few correct responses include infection, chipped or cracked teeth, injury to gums, pain and swelling, prolonged bleeding, and heart disease.

**Comment:**

*Infection* – our mouths contain millions of bacteria, which can lead to infection after an oral piercing. Handling jewelry once it has been placed in the mouth also increases your chances of getting an infection.

*Chipped or cracked teeth* – contact with oral jewelry can fracture teeth. Teeth that have restorations, such as crowns or caps, can also be damaged if the jewelry strikes them.

*Injury to the gums* – not only can metal jewelry injure soft gum tissues, it can cause the gums to recede. In addition to looking unattractive, recessed gums leave your tooth root more vulnerable to decay and periodontal disease.

*Prolonged bleeding* – if a blood vessel is punctured by the needle during piercing, the result can be difficult-to-control bleeding and serious blood loss.

*Pain and swelling* – pain and swelling are common symptoms of oral piercings. In extreme cases, a severely swollen tongue can actually close off the airway and restrict breathing.

## Tobacco Category:

**10:** Smoking tobacco increases our chance for what disease?

**Answer:** Gum Disease

**Comment:** When gums pull away from the teeth, it is not only unsightly, but can make you vulnerable to decay on tooth roots and make your teeth sensitive.

**30:** What percent of people who suffer from mouth cancer and some types of throat cancer have used tobacco?

**Answer:** 90%

**Comment:** Spit tobacco users are more likely than nonusers to get oral cancer, or cancer of the mouth and throat. Oral cancer includes cancers of the lip, tongue, cheek, throat, gums, roof and floor of the mouth, and larynx (voice box). Surgery to treat oral cancer is often extensive and disfiguring and may involve removing parts of the face, tongue, cheek, or lip. Difficulty chewing, swallowing, talking, and even breathing can result from cancer and the surgery required to treat it. Oral cancer can spread to other parts of the body quickly. On average, half of oral cancer victims are dead within 5 years of diagnosis.

**50:** Where can cancer form due to the use of smokeless tobacco?

**Answer:** Cheek, gums, and inner surface of the lips

**Comment:** Your chance of developing cancer increases when smokeless tobacco and its juices come in contact with your mouth tissue.

**100:** In months, how long does it take for chewing tobacco to begin to cause gum disease and precancerous lesions?

**Answer:** Three to four months

**Comment:** Sores, white patches and lumps inside the mouth are signs of tissue damage caused by using spit tobacco. Some white patches can turn into cancer over time.

**200:** What are three effects of tobacco use on your dental health?

**Answer:** A few correct responses include stains on your teeth/tongue, bad breath, build-up of tarter, receding gum line, and delay healing.

**Comment:** The health effects of tobacco are preventable. You can prevent these effects by not starting, or by quitting as soon as possible.

## Cleaning In Between Category:

**10:** Why is it important to floss your teeth?

**Answer:** To remove plaque between teeth where a toothbrush cannot reach.

**Comment:** By removing plaque and food particles between your teeth, you help to prevent tooth decay. In addition, flossing prevents bad breath and gum disease.

**30:** What is the recommended length of floss in inches to use when flossing?

**Answer:** 18 inches

**Comment:** You need at least 18 inches of floss because you need to use a new section of floss as you move from one tooth to the next. Although there has been no research, some professionals think reusing sections of floss may redistribute bacteria pulled off one tooth onto another tooth.

**50:** When should you floss your teeth?

**Answer:** Once a day; before you brush your teeth

**Comment:** When you floss, you release plaque and food particles from in between your teeth.

**100:** What percent of tooth surface remains untouched if you do not floss?

**Answer:** 40% or 7 teeth

**Comment:** Not cleaning 40% of your teeth is equivalent to not touching 7 teeth. Also, brushing your teeth without flossing is like washing only 70% of your body.

**200:** What letter in the alphabet should you shape the floss when flossing your teeth?

**Answer:** The letter "C"

**Comment:** By shaping the floss in the letter "C," you are able to gently follow the curves of your teeth.

## Brush Your Teeth Category:

**10:** How often should you brush your teeth?

**Answer:** Twice a day; in the morning and before bed

**Comment:** Regular brushing and flossing can remove this plaque, but soon after you remove it, it starts forming again. That's why it's important to brush twice a day and floss daily. Every time you eat, particles of food become lodged in and around your teeth, providing fuel for bacteria. The more often you eat and the longer food stays in your mouth, the more time bacteria have to break down sugars and produce acids that begin the decay process.

**30:** In months, how often should you change your toothbrush?

**Answer:** At least every three months or when the toothbrush looks worn.

**Comment:** You should replace your toothbrush when it begins to show wear, or every three months, whichever comes first. It is also very important to change toothbrushes after you've had a cold, since the bristles can collect germs that can lead to reinfection. A fact for you, blue is America's choice for a toothbrush color.

**50:** What kind of bristles should your tooth brush have?

**Answer:** Soft

**Comment:** Most dental professionals agree that a soft-bristled brush is best for removing plaque and debris from your teeth. Small-headed brushes are also preferable, since they can better reach all areas of the mouth, including hard-to-reach back teeth.

**100:** How long should you brush your teeth for?

**Answer:** At least 2 minutes

**Comment:** Set a timer if you have to, but don't skimp on brushing time. Longer is fine, but two minutes is the minimum time needed to adequately clean all your teeth. Many people brush for the length of a song on the radio. That acts as a good reminder to brush each tooth thoroughly.

**200:** What three beverages increase your chances of stained teeth?

**Answer:** Coffee, tea, and red wine

**Comment:** Beverages containing additives such as corn syrup and food dye can make pearly white teeth appear dull and discolored. Therefore, it is best to choose beverages like milk, which helps strengthen teeth and build stronger enamel, giving you a healthy, beautiful smile.

## Miscellaneous Category:

**10:** How often should you go to the dentist?

**Answer:** Twice a year

**Comment:** Regular visits allow your dentist to find early signs of and disease and treat problems at a manageable stage. On average, seeing a dentist twice a year works well for most people. A few people can get away with fewer visits; others may need more frequent visits. People with very little risk of cavities or gum disease can do fine seeing their dentist just once a year. People with high risk of periodontal disease (because of current gum disease, a weak immune response to bacterial infection or a genetic predisposition to plaque build-up or cavities) might need to see the dentist every three or four months, or even more frequently, for the best care.

**30:** What are the most important things you can do to maintain good oral health?

**Answer:** Floss and brush your teeth

**Comment:** Brush twice a day with an ADA-accepted fluoride toothpaste to remove plaque. Plaque is the main cause of tooth decay and gum disease. Floss daily to remove plaque from between your teeth and under your gumline.

**50:** What are the microorganisms called that cause most oral health problems?

**Answer:** Plaque

**Comment:** Plaque contains bacteria that can cause cavities and gum disease.

**100:** What compound strengthens developing teeth and helps to prevent decay?

**Answer:** Fluoride

**Comment:** Fluoride helps prevent tooth decay by slowing the breakdown of enamel and speeding up the remineralization process. Common sources of fluoride are fluoridated drinking water, toothpaste, and mouth wash.

**200:** What is another name for hardened plaque that can only be removed by your dentist or dental hygienist?

**Answer:** Tarter

**Comment:** If plaque is not removed daily, it can harden into tartar - an unsightly, hard yellow build-up.

## The Field of Dentistry Category:

**10:** If you enjoy delicate work that involves the manipulation of substances through molding, what occupation in dentistry is right for you?

**Answer:** Dental Laboratory Technician

**Comment:** A dental laboratory technician makes dental prostheses – replacements for natural teeth to help people who have lost some or all of their teeth to eat, chew, talk and smile in a manner that is similar to or better than the way they did before. Many technicians acquire skill in the use of sophisticated instruments and equipment while performing laboratory procedures. The services performed by dental technicians will always be needed. With the population growing older, there will be a continued demand for prostheses which improve these individuals' nutrition, appearance and ability to speak clearly. The best way to become a dental technician is to receive formal education. Dental technicians can begin their careers without a college degree; however, continuing education is encouraged. So if a career in health care appeals to you, but several extra years of school doesn't then dental laboratory technology is a field you will want to explore.

**30:** How many years of school does a dentist need?

**Answer:** High school diploma, three or four years of pre-dental courses, and four years of dental education.

**Comment:** Pre-dentistry courses are offered in South Dakota at Augustana College in Sioux Falls, Black Hills State University in Spearfish, Dakota State University in Madison, Dakota Wesleyan University in Mitchell, Mount Marty College in Yankton, Northern State University Aberdeen, South Dakota School of Mines and Technology in Rapid City, South Dakota State University in Brookings, University of Sioux Falls in Sioux Falls, and University of South Dakota in Vermillion. There are not any dental schools in South Dakota; however, you may obtain a degree from a college in South Dakota and continue your schooling outside of South Dakota.

**50:** What is the job outlook for dental hygienists through the year 2012?

**Answer:** Employment is expected to grow much faster than the average; one of the fastest growing occupations

**Comment:** The responsibilities of dental hygienists include cleaning teeth and provide other preventative dental care. Hygienists also teach good oral health to patients. For example, they may explain the relationship between diet and oral health or inform patients how to select toothbrushes and show them how to brush and floss their teeth. Hygienists examine patients' teeth and gums, recording the presence of diseases or abnormalities. They remove calculus, stains, and plaque from teeth; take and develop dental x rays; and apply cavity-preventive agents such as fluorides and pit and fissure sealants.

**100:** What is the job title of the person who obtains your dental records?

**Answer:** Dental Assistant

**Comment:** Dental assistants perform a variety of patient care, office, and laboratory duties. They work chairside as dentists examine and treat patients. They make patients as comfortable as possible in the dental chair, and prepare them for treatment. Assistants hand instruments and materials to dentists and keep patients' mouths dry and clear by using suction or other devices. Assistants also sterilize and disinfect instruments and equipment, prepare trays of instruments for dental procedures, and instruct patients on postoperative and general oral health care.

**200:** How many dental schools are there in the United States?

**Answer:** 55

**Comment:** In addition to the United States, Canada has 11 dental schools and Puerto Rico has 1 dental school.

