

## Delaware Recommended Curriculum Unit Template

**Unit Title:** Get the Skinny on What You're Drinking      **Grade Cluster:** 6-8  
**Designed By:** Kimberly A. Hickman-Bowen, RDH, BSDH, MA

**Big Idea:** *Health is Personal Power*

### Overarching Enduring Understanding:

- Functional knowledge of health concepts impacts health behavior
- People, places and things compete for our health choices
- Utilizing valid resources facilitates health
- Effective communication protects and enhances health
- Decision making is a process that impacts health
- Goal setting enhances health outcomes
- A healthy lifestyle impacts the quality of life
- Advocacy is critical to personal, family and community health

### Overarching Essential Questions:

1. What is health?
2. What prevents people from practicing healthy behavior?

**Exit Transfer Task:** Develop a commercial advertising the best three drink choices to maintain the health of your teeth throughout your life.

### Delaware Health Education Standards

- Students will understand essential health concepts in order to transfer knowledge into healthy actions for life.
  - ATOD
  - Nutrition/PA
  - Personal Health & Wellness
  - Community & Environmental Health
  - Injury Prev. & Safety
  - Family Life & Sexuality
  - Mental Health
- Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors.
- Students will demonstrate the ability to access information, products and services to enhance health.
- Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- Students will demonstrate the ability to use decision-making skills to enhance health.
- Students will demonstrate the ability to use goal-setting skills to enhance health.
- Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
- Students will demonstrate the ability to advocate for personal, family, and community health.

**Time Frame:** (# of lessons) 3 Lessons approximately 20 minutes

**Brief Summary of Unit:** Lesson #1- Sugar Effects on the Teeth, Lesson #2- Sugar Contents of Various Drinks and Lesson #3- Sugar Consumption and the Connection to Diseases of the Whole Body

**Stage 1: Desired Results**  
(Determine What Students Will Know, Do and Understand)

**Unit Big Idea: *Sugar and the effects it has on a person's oral health and total body health***

**Unit Enduring Understandings:** This Unit can apply to all eight of the overarching enduring understanding.

**Unit Essential Questions:**

1. What is a healthy choice for drinking?
2. What prevents people from practicing healthy behaviors in choosing their drinks?

**Knowledge & Skills**

*Students will know.... Students will understand the effects that sugar consumption will have on their oral health and their overall total body health.*

*Students will be able to... (1) Students will be able to explain the effects of sugar consumption on the oral health of their teeth. (2) Students will be able to analyze the sugar contents of various drink choices. (3) Students will be able to identify the effects that excessive sugar consumption will have on their teeth throughout their lifespan.*

**Stage 2: Assessment Evidence  
(Design Assessments To Guide Instruction)**

**Unit Transfer Task: Develop a commercial advertising the best three drink choices to maintain the health of your teeth throughout your life.**

**Rubrics/checklists for Transfer Tasks**

4 – Student work demonstrates comprehensive understanding of the short and long term effects of sugar on the oral health of teeth and the potential for limiting the length and quality of their life. The performance of the commercial is persuasive and sophisticated, with strong ideas that are skillfully presented.

3 – Student work demonstrates understanding of the short and long term effects of sugar on the oral health of teeth and the potential for limiting the length and quality of their life. The performance of the commercial is persuasive and original, with ideas that are skillfully presented.

2 - Student work demonstrates limited understanding of the short and long term effects of sugar on the oral health of teeth and the potential for limiting the length and quality of their life. The performance of the commercial is thought provoking and original, with ideas that are skillfully presented.

1 - Student work demonstrates minimal understanding of the short and long term effects of sugar on the oral health of teeth and the potential for limiting the length and quality of their life. The performance of the commercial is organized, with a variety of ideas that are not clearly presented.

**Other Evidence:**

1. *Students will develop a food log for a week noting drink choices and their total sugar content.*
2. *Students will compose a family tree noting any instances of family members who have a history of diabetes.*
3. *Students will complete a diagram explaining the effects of sugar on the teeth and the development of tooth decay.*

### Stage 3: Learning Activities To Align with Goals and Assessments

#### Lessons needed to achieve unit goals:

Lesson #1- The students must understand the role sugar plays in the demineralization and cavity formation of the teeth.

- Helpful resource:  
[http://www.calgaryhealthregion.ca/programs/dental/pdf/rtyd/background\\_info.pdf](http://www.calgaryhealthregion.ca/programs/dental/pdf/rtyd/background_info.pdf)  
<http://www.ada.org/smilestarts>

Lesson #2 – The student will be able to differentiate the amounts of sugar in a variety of everyday drink choices.

- Helpful resource:
- <http://www.calgaryhealthregion.ca/dental> - “Re-Think Your Drink”
- [http://www.calgaryhealthregion.ca/programs/dental/pdf/rtyd/background\\_info.pdf](http://www.calgaryhealthregion.ca/programs/dental/pdf/rtyd/background_info.pdf)  
Additional information can be found on the link for:  
“Drink Frequently Asked Questions”  
“(T-2) Lesson Suggestions”

Lesson #3 – The student will demonstrate the ability to practice health-enhancing behaviors in selecting low sugar content drinks to avoid or reduce risk of disease to their total health.

- Helpful resource:
- [http://www.calgaryhealthregion.ca/programs/dental/pdf/rtyd/background\\_info](http://www.calgaryhealthregion.ca/programs/dental/pdf/rtyd/background_info)
- <http://www.adha.org/downloads/diabetes.pdf>
- [http://www.adha.org/downloads/adolescents\\_factsheet](http://www.adha.org/downloads/adolescents_factsheet)
- [http://www.adha.org/downloads/nutrition\\_factsheet](http://www.adha.org/downloads/nutrition_factsheet)

#### Resources & Teaching Tips:

- What text/print/media/kit/web resources best support this unit?
  - [http://www.adha.org/downloads/nutrition\\_factsheet](http://www.adha.org/downloads/nutrition_factsheet)
  - <http://www.ada.org/smilesarts>
  - <http://www.calgaryhealthregion.ca/dental> - “Re-Think Your Drink”
  - <http://www.adha.org/downloads/diabetes.pdf>
  - [http://www.adha.org/downloads/periodo\\_smoking.pdf](http://www.adha.org/downloads/periodo_smoking.pdf)
  - [http://www.adha.org/downloads/adolescents\\_factsheet](http://www.adha.org/downloads/adolescents_factsheet)
  - <http://dentalcare.com> - request Crest toothbrush kits

- **Tips to teachers of the unit can you offer about likely rough spots/student misunderstandings and performance weaknesses, and how to troubleshoot those issues?**

- Introduction to the Unit: Get the Skinny on What You're Drinking

*The teacher will setup a display of three drink choices (16.9oz "Coca-Cola", 20oz "Orange Gatorade", 24oz "Vitamin Water"-Citrus flavor) and ask the class to identify which drink choice would be the healthy drink choice? [Based on the number of carbohydrates in the full bottle servings, the "orange Gatorade" is the best choice, not the "Vitamin-Water"????*

*Review the Transfer Task for the Unit: Students will work in collaborative groups to develop a commercial advertising the best three drink choices to maintain the health of your teeth throughout your life.*

*Groups of four are suggested for the success of this task.*

- *Lesson #1: Sugar Effects on the Teeth – Assignment: Students will complete a diagram explaining the effects of sugar on the teeth and the development of tooth decay.*

*The teacher must review how a cavity forms in a tooth. Every time a person eats or drinks the sugar from these substances mix with the bacteria in the person's saliva to form an "acid" which attacks the tooth and breaks down its' enamel causing a cavity in the tooth.*

*Activity: Draw a large tooth on a paper towel with a permanent marker. Using a black watercolor marker, make a heavy dot on the tooth to represent a cavity. Add a drop of water ("the acid attack") to the heavy dot and watch how the cavity grows and spreads from the "acid attack". [Adapted from Module 2 in the "ADA Smile Starts" Oral Health Curriculum-Grade 3]*

***This Lesson#1 will demonstrate the student's understanding of their prior knowledge presented in the Delaware Oral Health Curriculum 3<sup>rd</sup>-5<sup>th</sup> Grades.***

- *Lesson #2: Sugar Contents of Various Drink Choices – Assignment: Students will develop a food log for a week noting drink choices and their total sugar content.*

*Be careful to watch as the students observe the sugar content in their favorite drink selections, noting that the total sugar content is based on the serving size and some drink containers may contain more than one serving.*

- *Lesson#3: Sugar Consumption and the Connection to Diseases of the Whole Body – Assignment: Students will compose a family tree noting any instances of family members who have a history of diabetes, obesity or periodontal disease.*

*The teacher should distribute the handouts from the “Calgary Oral Health Curriculum – Re-Think Your Drink: Background information-“Why you should choose sugary drinks less often?” and the factsheets from the American Dental Hygienists’ Association- downloads- “diabetes”, “nutrition” and “periodontal disease”*

- ***After completion of the above three lessons, the students should be allowed to complete their group work for the unit transfer task: Developing their commercial....***
- *The teacher should allow a small portion of class time, once the groups have completed their research for the groups to film their projects, perhaps developing a sign-up sheet for class session segments to utilize the technical equipment for completion of their task.*
- *Finally, a class session should be set for the whole class to view the completed commercials by the groups, in order for the groups to share the collaborative knowledge they have achieved through this oral health unit.*

#### **Accommodation/Differentiation ideas and tips**

- *Permission slips to have students videotaped/photographed on school property*
- *Video tape recorder needed for students to film their commercial*
- *Need to secure audiovisual equipment to view the commercial projects in class*
- *The class may be divided into small groups for this unit assignment to be successful*
- *The three lessons associated may want to be on display in the classroom for reference while the students are making their commercial.*

***KHB: updated January 10, 2008***