

## LESSON PLAN #2 (TEMPLATE)

Course: What are Cavities, Anyway?!	Topic: Caries Process	Audience: Community Health Patients with Low Health Literacy
Needed Materials: Projector, Handouts	Total Time: 50 minutes	

**OBJECTIVES:** Upon completion of the lecture, the student should be able to:

(#1-4 cognitive; #5 affective)

1. Label the parts of a tooth.
2. Explain the caries process.
3. Determine which foods are most cariogenic.
4. Differentiate which oral hygiene products would be most effective in reducing caries occurrence.
5. Develop a homecare routine to reduce caries occurrence.

### ANTICIPATORY SET:

Give a brief description of what you will do (1-3 sentences for each white section below).

**TOTAL TIME FOR ANTICIPATORY SET:   5   minutes**

#### Introduction:

Dental caries, or “cavities”, is a major public health problem that affects all ages and spans across the world. This is a disease process where our teeth are attacked by the bacteria in our mouths, resulting in us needing to see a dentist fix them (Boyd & Mallonee, 2023).

#### Gain Attention/Motivate:

Look at this photo of a patient’s mouth who came in with several dental caries. This person required the services of a dentist to repair their teeth. Do you think this person was happy with how their teeth looked? When you look at this photo, do you think this person had any pain?

#### Activate Prior Knowledge:

How do you think we can avoid becoming this patient? What things can we do at home to prevent this from happening? Now, think about the things we eat; what types of food do you know that can contribute to caries and what types of foods can help protect us from them?

#### Establish Rationale:

By joining us today, you will learn what caries are, their process of development, and how we can protect ourselves from this disease.

### LESSON CONTENT:

Use outline below to give a sample of main lecture points (no sentences). Roman numerals I-V will correspond to the 5 objectives and serve as major headings (DO NOT re-write objectives). A-C will be sub-headings that list important supporting details. Give a brief summary (use about 5-7 sentences for this).

**TOTAL TIME FOR LESSON CONTENT: 35 minutes**

#### What I Do (Lecture):

##### I. Tooth Anatomy

- A. Enamel
- B. Dentin
- C. Cementum

##### II. Caries Process

- A. Demineralization
- B. Noncavitated/Cavitated Lesion
- C. Progression

##### III. Foods & Beverages

- A. Cariogenic
- B. Cariostatic
- C.

##### IV. Hygiene Products

- A. Toothpaste
- B. Mouthrinse
- C. Floss

##### V. Homecare Routine

- A. Brushing
- B. Rinsing
- C. Flossing

#### SUMMARY:

Although dental caries is a leading disease across the world, it is also preventable. If we can catch decay occurring in an early stage of demineralization, we can stop the process from progressing into needing restoration. However, if we are unable to catch it soon enough, cavitated lesions will need restoration/fillings. The food and beverages we consume can help us to maintain a healthy oral environment. Choosing cariostatic options such as cheeses and nuts, over cariogenic options that are sticky and chewy like pastas, dried fruits, and acidic beverages, can help us avoid creating cavities. In addition, selecting products that can strengthen our enamel (with fluoride or hydroxyapatite) and incorporating them into an effective daily routine will help us achieve a healthy oral environment.

### What We Will Do (Critical Thinking Activity):

Choose 1 option from the list and give a brief description of what the class will do for this high-level critical thinking activity.

**TOTAL TIME FOR CRITICAL THINKING ACTIVITY: 10 minutes**

Class Discussion- I will provide slides with different food and beverages and the class will discuss whether or not they would initiate/progress the caries process. For example, images used may include: Cheez Its, fruit snacks, raisins, and energy drinks as poor choices and cheese, grapes, water, and meats and good choices. After debating whether they are good choices or bad, we can discuss *why* they are. It may be because it is a starchy carbohydrate, sticky and sugary, acidic, etc.

### ASSESSMENT:

#### What Students Will Do (Independent Assessment):

List objectives in order with a corresponding test item for each. #1-3 should be multiple choice questions, #4-5 should be short answer questions. Include answer key.

#### 1. Objective #1:

Test Item: What is the outer surface of the crown of a tooth made up of?

- A. Cementum
- B. Enamel
- C. Dentin
- D. Bone

#### 2. Objective #2:

Test Item: A cavity will need a filling when the process has reached which stage?

- A. Demineralization
- B. White spot
- C. Noncavitation
- D. Cavitation

#### 3. Objective #3:

Test Item: Which food is **NOT** cariogenic?

- A. Cheese
- B. Pasta
- C. Raisins
- D. Juice

**4. Objective #4:**

Test Item: What types of products would be best for helping reduce the caries process?

**5. Objective #5:**

Test Item: Develop a homecare routine that would be effective in helping to reduce the occurrence of caries in an adult.

**ANSWER KEY:**

1. B

2. D

3. A

4. Products containing fluoride would be best in helping to reduce caries. Fluoride aids in strengthening the enamel of teeth and stopping the caries process (Boyd & Mallonee, 2023). Hydroxyapatite is also a new product on the market showing effectiveness in caries prevention (Chen et al., 2021).

5. Answers may vary, key points to include: limiting cariogenic foods and drinks, brushing 2+ times/day, flossing daily, and using an antibacterial fluoride rinse at least 1x/day.

**REFLECTION:**

Briefly answer the questions below with 3 sentences each. (Write one sentence per bullet point):

1. Regarding the logistics of planning a lecture, what did you notice about how **template lesson planning (lesson plan #2)** differs from **full-length lesson planning (lesson plan #1)**?
  - No adding notes/media.
  - No running column for Q&A planning.
  - Abbreviated anticipatory set.
  
2. Which style of lesson planning is your preference **and why**?
  - TEMPLATE lesson planning I THINK will be more my style because I like more freedom in my discussions.
  - TEMPLATE lesson planning would be more direct and easier to follow.
  - FULL-LENGTH would make me more secure if I were talking on points I maybe was less familiar with.

**REFERENCES:**

In the white space below, list at least 5 references from the last 5 years from a variety of sources using APA style.

1. Boyd, L., & Mallonee, L. (2024). *Wilkins' clinical practice of the dental hygienist* (14th ed.). Jones & Bartlett Learning.
2. Chen, L., Al-Bayatee, S., Khurshid, Z., Shavandi, A., Brunton, P., & Ratnayake, J. (2021). Hydroxyapatite in Oral Care Products-A Review. *Materials (Basel, Switzerland)*, 14(17), 4865. <https://doi.org/10.3390/ma14174865>
3. Tungare S, Paranjpe AG. Diet and Nutrition to Prevent Dental Problems. [Updated 2023 Jul 10]. In: StatPearls [Internet]. Treasure Island (FL):StatPearls Publishing; 2024 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK534248/>

\*\*\*This lesson plan template is a brief overview of a full-length lesson plan. It should provide a good understanding of an entire lesson.