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| **TEXAS CTE LESSON PLAN**  [www.txcte.org](http://www.txcte.org) | |
| **Lesson Identification and TEKS Addressed** | |
| **Career Cluster** | Human Services |
| **Course Name** | Introduction to Cosmetology |
| **Lesson/Unit Title** | Principles of Infection Control |
| **TEKS Student Expectations** | **130.282. (c) Knowledge and Skills**  (2) The student applies academic skills to the field of cosmetology. The student is expected to:  (A) appraise safe and effective personal care products and services  (3) The student demonstrates knowledge of rules and regulations established by the Texas Department of Licensing and Regulation (TDLR). The student is expected to:  (A) implement policies and procedures regarding health and safety  (4) The student identifies and describes the function of tools, equipment, and technologies used in cosmetology. The student is expected to:  (A) explore safe use of tools to enhance client services |
| **Basic Direct Teach Lesson**  (Includes Special Education Modifications/Accommodations and  one English Language Proficiency Standards (ELPS) Strategy) | |
| **Instructional Objectives** | **Students will:**   * Identify bacteria, parasites, and viruses * Analyze cleaning and disinfecting in the salon * Review rules and regulations for disinfecting a foot spa and basin * Demonstrate how to clean and disinfect foots spas, pedicure equipment, tools and implements and work surfaces |
| **Rationale** | Learning about what can cause infections in a salon is very important for the health and safety of both the client and the cosmetologist. There are rules and regulations that must be followed to prevent the spread of bacteria and other diseases. The application of these precautions will safeguard you and your clients and ensure a safe environment to do business in. Let’s find out what they are! |
| **Duration of Lesson** | Three 45-minute class periods |
| **Word Wall/Key Vocabulary**  *(ELPS c1a, c, f; c2b; c3a, b, d; c4c; c5b) PDAS II (5)* | **Bacteria:** One-celled microorganism that have both plant and animal characteristics  **Cleaning:** A mechanical process (scrubbing) using soap and water or detergent and water to remove all visible dirt, debris, and many disease-causing germs from tools, implements and equipment  **Disinfection:** Destroys most, but not necessarily all, harmful organisms on environmental surfaces  **Environmental Protection Agency (EPA):** Registers all types of disinfectants sold and used in the United States  **Infection:** The invasion of body tissues by disease-causing pathogens  **Occupational Safety and Health Administration (OSHA):** Regulates and enforces safety and health standards and protects employees in the workplace  **Viruses:** A parasitic submicroscopic particle that infects and resides in the cells of a biological organism |
| **Materials/Specialized Equipment Needed** | **Equipment:**   * Computer with projector for multimedia presentation * Computers with Internet access (be sure to follow district guidelines for internet access) * Light projector (Elmo) * Foot spas or basins   **Materials:**   * Images of infections on:   + Fingernails   + Hair   + Scalp   + Skin   + Toenails   **Supplies:**   * Brushes * Clips * Combs * Hairpins * Makeup brushes * Nail clippers * Tweezers * Copies of handouts   **PowerPoint:**   * Principles of Infection Control   **Technology:**   * Free iPad App:   + CDC – Centers for Disease Control and Prevention  Features important health articles, disease of the week, current outbreaks, timely updates and more.<https://itunes.apple.com/us/app/cdc/id487847188?mt=8> * TED Talks:   + Tyler DeWitt: Hey science teachers — make it fun  High school science teacher Tyler DeWitt was ecstatic about a lesson plan on bacteria (how cool!) â and devastated when his students hated it. The problem was the textbook: it was impossible to understand. He delivers a rousing call for science teachers to ditch the jargon and extreme precision, and instead make science sing through stories and demonstrations.<http://www.ted.com/playlists/182/talks_from_inspiring_teachers>   **Graphic Organizers:**   * Handwashing Techniques * Handwashing Techniques (Key) * KWL – Infections * Note-Taking: Principles of Infection Control   **Handouts:**   * Cosmetologists Health and Safety Rules * Foot Spa and Foot Basin Sanitation Requirements * Non-Whirlpool Foot Basin/Tub Instructions * Rubric for Infection Control * Whirlpool Foot Spa Instructions |
| **Anticipatory Set**  (May include pre-assessment for prior knowledge) | **Before class begins:**  Set up a sanitized workstation that will aid as a visual reference throughout the lesson.   Display as many items from the Materials/Specialized Equipment Needed tab as you have available in the front of the classroom so that students see them as they enter.  Distribute the graphic organizer KWL – Infections and have students complete the first two sections.   * K – What do I KNOW about infections? * W – What do I WANT to know about infections?   The last section will be completed during lesson closure.  Ask students the following questions:   * Why should we study infection control? * Should we have laws and rules regulating safety and sanitation in our profession? Why? * What do you remember from Biology regarding microscopic bacteria?   Explain to students the importance of a sanitized workstation and how it effects the health and wellbeing of their future clients. |
| **Direct Instruction \*** | Review lesson objectives, terms, and definitions.  Distribute the handout Note-Taking: Principles of Infection Control so that students may take notes during the slide presentation.  Introduce the PowerPoint Principles of Infection Control. A Follow slide presentation script and discuss details with your students.  View videos in this order:   * How to Establish the Disinfectant Tray Establishing the disinfectant tray is the first operation for State Board Exam for all beauty school students, who take a test to get their license. Sanitation and Disinfection operation is a separate procedure. It requires disinfecting the soiled implements of the previous operation, like haircut or color that was in the exam book before sanitation.   *Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*   * checking for understanding * providing assistance with note-taking |
| **Guided Practice \*** | Review the Cosmetologists Health and Safety Rules for the general requirements of the Health and Safety Standards.  These standards include:   * Clean and disinfect equipment, tools, implements and supplies before use on each client * Use clean towels for each client * Use clean cutting implements and shampoo capes for each client * Use a sanitary neck strip or towel * Employ good hygiene habits while providing cosmetology service * Distribute the graphic organizer Handwashing Techniques and log onto the Texas Department of State Health Services so that students may take notes from the website. * Handwashing Techniques The Association for Professionals in Infection Control and Epidemiology (APIC) recommends the following procedure for thorough handwashing  [http://www.dshs.state.tx.us/idcu/health/prevention/handwashing/](http://cte.sfasu.edu/wp-content/uploads/2015/01/Cosmetologists-Health-and-Safety-Rules.pdf)   Distribute the handouts Foot Spa and Foot Basin Sanitation Requirements, Non-Whirlpool Foot Basin/Tub Instructions and Whirlpool Foot Spa Instructions and review each handout with the students as you demonstrate the procedures.  Demonstrate how to disinfect:   * Foot spas and pedicure equipment * Nonelectrical tools and implements * Work surfaces   *Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*   * allowing student to use a check list * checking for understanding |
| **Independent Practice/Laboratory Experience/Differentiated Activities \*** | Divide the class in to subgroups of two students.  Instruct the students to practice infection control procedures.  Students will:   * Work independently to disinfect:   + Foot spas and pedicure equipment   + Nonelectrical tools and implements   + Work surfaces * Practice correct handwashing techniques   Distribute the Rubric for Infection Control so that students will know what is expected.  *Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*   * extending time for assignment * encouraging participation |
| **Lesson Closure** | Review lesson objectives, terms, and definitions.  Have students complete the last section on their KWL – Infections.   * L – What did I LEARN about infections?   Ask students the following questions:   * What is the primary purpose of regulatory agencies?   + enforces a clean working environment * Explain the difference between cleaning, disinfecting and sterilization.   + cleaning – removes all visible dirt and debris   + disinfecting – eliminates most, but not necessarily all, microorganisms   + sterilization – completely destroys all microbial life, including spores * Safety and sanitation play a huge role in a business working closely with the general public. Why is it important to follow all safety and sanitation procedures?   To stop the spread of communicable disease and to keep the general public safe from hazardous health conditions. |
| **Summative/End of Lesson Assessment \*** | Students will be assessed with appropriate rubric.  *Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*   * grading according to work done * providing praise and encouragement |
| **References/Resources/**  **Teacher Preparation** | **Textbook:**   * *Milady standard cosmetology: Situational problems.* (2012). Clifton Park, NY: Cengage Learning.   **Websites:**   * Handwashing Techniques  The Association for Professionals in Infection Control and Epidemiology (APIC) recommends the following procedure for thorough handwashing <http://www.dshs.state.tx.us/idcu/health/prevention/handwashing/> * Health Hazards in Nail Salons: Biological Hazards  Biological hazards include bacteria, fungi, and viruses.<https://www.osha.gov/SLTC/nailsalons/biohazards.html>   **YouTube:**   * How to Establish the Disinfectant Tray  Establishing the disinfectant tray is the first operation for State Board Exam for all beauty school students, who take a test to get their license. Sanitation and Disinfection operation is a separate procedure. It requires disinfecting the soiled implements of the previous operation, like haircut or color that was in the exam book before sanitation.<http://www.youtube.com/watch?v=iqaV39GF4Hs> |
| **Additional Required Components** | |
| **English Language Proficiency Standards (ELPS) Strategies** | * Word wall * Work with peer tutor * Peer to read materials * Highlighted materials for emphasis |
| **College and Career Readiness Connection[[1]](#footnote-1)** |  |
| **Recommended Strategies** | |
| **Reading Strategies** | Articles pertaining to this lesson that students may read include:   * Beauty Salon Rules and Regulations  Salons are required to maintain sanitation standards including washing hands between clients, disposing of supplies such as wax cloths and disinfecting re-usable tools immediately after their use.<http://www.ehow.com/list_6193220_beauty-salon-rules-regulations.html> * How to Prevent Bacteria Growth   Bacteria can be found everywhere, from kitchen counters to bathrooms and in public places like malls and playgrounds.<http://www.ehow.com/how_5091428_prevent-bacteria-growth.html> * Sanitation Requirements for Salons and Cosmetology Schools   Each state’s cosmetology board sets and oversees sanitation requirements to provide for the safety of clients and prevent the spread of disease.<http://www.ehow.com/info_8465800_sanitation-requirements-salons-cosmetology-schools.html>   **Reading strategy:** Encourage students to “visualize” as they read. Many students are visual learners and will benefit from making sketches or diagrams on scrap paper as they read. Providing students with graphic organizers to help them organize their thoughts is also helpful. |
| **Quotes** | Although we take it for granted, sanitation is a physical measure that has probably done more to increase human life span than any kind of drug or surgery. **–Deepak Chopra**  Cleanliness is very important. If you let kids make a total mess in the kitchen and then leave, you’re not really teaching them anything. **–Emeril Lagasse**  Water and sanitation has not had the same kind of champion that global health, and even education, have had. **- Jim Yong Kim** |
| **Writing Strategies**  **Journal Entries + 1 Additional Writing Strategy** | **Journal Entry:**   * Safety and sanitation in the salon is important because … * A TDLR failed inspection report will have what kind of effect on the public? * A virus can cause …   **Writing Strategy:**  Additional Writing Strategy: Students will write a RAFT writing strategy from the prospective of a salon manager about the current condition of the school salon/lab.   * Role: salon manager * Audience: stylist * Format: critique * Topic: sterilization and sanitation of salon equipment |
| **Communication**  **90 Second Speech Topics** | * Three safety and sanitation rules I learned in this lesson are … * The effects of not using correct handwashing techniques are … |
| **Other Essential Lesson Components** | |
| **Enrichment Activity**  (e.g., homework assignment) | Students may illustrate the different bacteria, parasites, and viruses that they may find in the salons.  **TED Talks:**  TED is a nonprofit organization devoted to spreading ideas, usually in the form of short, powerful talks (18 minutes or less).  The video below is related to this lesson. Allow students to view the video and lead a discussion concerning the TED Talk.  Tyler DeWitt: Hey science teachers — make it fun  High school science teacher Tyler DeWitt was ecstatic about a lesson plan on bacteria (how cool!) â and devastated when his students hated it. The problem was the textbook: it was impossible to understand. He delivers a rousing call for science teachers to ditch the jargon and extreme precision, and instead make science sing through stories and demonstrations.<http://www.ted.com/playlists/182/talks_from_inspiring_teachers> |
| **Family/Community Connection** | Students can educate friends and family about safety and sanitation by offering to sanitize their personal makeup brushes and combs they use at home. This will help students interact with potential clients and allow for a deeper understanding of sanitation to take place. |
| **CTSO connection(s)** | **Skills USA**  [www.skillsusa.org](http://www.skillsusa.org)   * Esthetics  The Esthetics competition evaluates the contestants’ techniques and professionalism in the field of skin care. Students will be tested in four different areas: an oral skin consultation; a written exam covering the fundamentals of skin care; sanitation; skin analysis; a hands-on basic facial demonstration; and, a day time and fantasy make-up application.   Nail Care  The purpose of this contest is to evaluate each contestant’s preparation for employment and to recognize outstanding students’ excellence and professionalism in the field of nail technology. The contest consists of 6 separate segments; oral communication skills, acrylic application, tips applied and overlaid with a light-cured gel, nail polish application, nail art pedicuring and a written exam. The written exam tests basic knowledge of proper sanitation, chemical safety, salon procedures, etc. The practical applications evaluate the contestant’s ability to perform the most common nail services in the salon today. |
| **Service Learning Projects** | Successful service learning project ideas originate from student concerns and needs. Allow students to brainstorm about service projects pertaining to lesson.  For more ideas, visit: [http://www.ysa.org/](http://www.ysa.org)  Possible idea:  Students may hold informational seminars for the public on what to cleaning and sanitizing procedures to look for at nail salons. |

1. Visit the Texas College and Career Readiness Standards at <http://www.thecb.state.tx.us/collegereadiness/CRS.pdf>, Texas Higher Education Coordinating Board (THECB), 2009. [↑](#footnote-ref-1)