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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** | Cosmetology I |
| **Lesson/Unit Title** | Preventing Infections in the Salon Environment |
| **TEKS Student Expectations** | **130.283. (c) Knowledge and Skills**  (3) The student demonstrates knowledge of rules and regulations established by the TDLR. The student is expected to:  (A) apply health and safety policies and procedures  (4) The student demonstrates an understanding in the use of tools, equipment, technologies, and materials used in cosmetology. The student is expected to:  (A) employ safe and effective use of tools to enhance client services  (5) The student applies the academic knowledge and practical skills to simulated and actual work situations. The student is expected to:  (B) document client satisfaction, procedures, and products to facilitate ease of consultation in future appointments |
| **Basic Direct Teach Lesson**  (Includes Special Education Modifications/Accommodations and  one English Language Proficiency Standards (ELPS) Strategy) | |
| **Instructional Objectives** | **Students will:**   * Review the Cosmetologists Health and Safety Rules for Texas * Research diseases such as bacteria, viruses, bloodborne pathogens, fungi, and parasites * Analyze preventive procedures for infection control * Practice correct handwashing procedures * Practice disinfecting work surfaces, foot spas and manicure and pedicure tools |
| **Rationale** | Have you ever been in a salon that did not look clean? Did it make you feel as though you wanted to walk out and go somewhere else? Many public places are required to follow certain rules and regulations to meet public safety standards and prevent the spread of germs and diseases.  As a cosmetologist, you will come into contact with many different people every day. In order to prevent the spread of diseases, you will need to know how to thoroughly clean and disinfect your implements, foot spas and work surfaces to protect yourself and your clients. |
| **Duration of Lesson** | Five 45-minute class periods |
| **Word Wall/Key Vocabulary**  *(ELPS c1a, c, f; c2b; c3a, b, d; c4c; c5b) PDAS II (5)* | **Bacilli:** Short rod-shaped bacteria. The most common bacteria and produce diseases such as tetanus (lockjaw), typhoid fever, tuberculosis, and diphtheria  **Cocci:** Round shaped bacteria that appear singly (alone) or in groups. The three types of cocci are staphylococci, streptococci, and diplococci  **Decontamination:** The removal of blood or other potentially infectious materials on an item’s surface and the removal of visible debris or residue such as dust, hair, and skin  **Flagella:** Slender, hair like extensions used by bacilli and spirilla for locomotion (moving about). May also be referred to as cilia  **Fungi (singular: fungus):** Microscopic plant parasites, which include molds, mildews, and yeasts; can produce contagious diseases such as ringworm  **Hepatitis:** A bloodborne virus that causes disease and can damage the liver  **Infection control:** The methods used to eliminate or reduce the transmission of infectious organisms  **Material Safety Data Sheet (MSDS):** Information compiled by the manufacturer about product safety, including the names of hazardous ingredients, safe handling and use procedures, precautions to reduce the risk of accidental harm or overexposure, and flammability warnings  **Parasites:** Organisms that grow, feed, and shelter on or in another organism (referred to as the host), while contributing nothing to the survival of that organism. Parasites must have a host to survive  **Scabies:** A contagious skin disease that is caused by the itch mite, which burrows under the skin  **Spirilla:** Spiral or corkscrew-shaped bacteria that cause disease such as syphilis and Lyme disease  **Tinea:** The technical term for ringworm. Characterized by itching, scales, and sometimes, painful circular lesions. Caused by a fungal organism and not a parasite  Note: Many other terms on the slide presentation can be identified. Encourage students to include the definition in the assignment. |
| **Materials/Specialized Equipment Needed** | **Equipment:**   * Computer with projector for multi-media presentation * Computer with internet access (be sure to follow district guidelines for internet access) * Presenter/remote   **Materials:**   * Cardstock * Colored pencils, crayons, or markers * Glue or hot glue guns * Material safety data sheets (msds) from various products * Paper, 12” x 18”   **Supplies:**   * Autoclave unit (if you are unable to move the unit, have pictures or information available) * Candies (optional)   + Pez®, skittles ®, tic tac’s®, twizzlers® * Combs (several) * Barbacide jar®/wet sanitizer * Brushes * Gloves * Nail clippers * Scissors * Tongs * Tweezers * Copies of handouts   **PowerPoint:**   * Preventing Infections in the Salon Environment   **Technology:**   * Free iPad App:   + Hair Salon Clean-Up – Room Cleaning Game  The cleaning lady is on vacation so it is your job to clean the salon!<https://itunes.apple.com/us/app/hair-salon-cleanup-room-cleaning/id950607847?mt=8> * TED Talk:   + Bonnie Bassler: How bacteria “talk”  Bonnie Bassler discovered that bacteria “talk” to each other, using a chemical language that lets them coordinate defense and mount attacks. The find has stunning implications for medicine, industry â and our understanding of ourselves. <http://www.ted.com/talks/bonnie_bassler_on_how_bacteria_communicate>   **Graphic Organizers:**   * Note-Taking: Preventing Infections in the Salon Environment * The Science of Handwashing * The Science of Handwashing (Key)   **Handouts:**   * A Guide for Nail Salon Workers * Bacteria Candy Activity * Bloodborne Pathogen Exposure Incidents * Cosmetology Sanitation Rules – Texas * Danger at Your Local Salon * Foot Spa and Foot Basin Sanitation Requirements * Guideline for Cleaning and Disinfecting Manicuring and Enhancement Equipment * Infections Flashcards * Non-Whirlpool Foot Basin/Tub Cleaning and Disinfection Record * OSHA’s Bloodborne Pathogens Standard * Personal Protective Equipment (PPE) * Rubric for Preventing Infections in a Salon Presentation * Whirlpool Foot Spa Instructions |
| **Anticipatory Set**  (May include pre-assessment for prior knowledge) | **Before** class begins:  At the front of the classroom, or a central location, gather, arrange, and display items necessary for infection control in the salon setting (see Materials or Specialized Equipment Needed tab).  Allow students to view the items and discuss the importance of cleaning, sanitizing, and disinfecting cosmetology tools in a salon.   Distribute the handout Danger at Your Local Salon and instruct the students to read the ten statements and check the statements they believe are true.  Lead a discussion about the statements and whether the statements are true or not.  Students will re-visit this document in the Lesson Closure tab. |
| **Direct Instruction \*** | Introduce lesson objectives, terms, and definitions.  Distribute graphic organizer Note-Taking: Preventing Infections in a Salon Environment. Students should take **notes** during the slide presentation.  Introduce PowerPoint Preventing Infections in the Salon Environment. Instruct students to take notes during the presentation. Make sure to focus on the contents of each slide. Encourage questions and discussion.  *Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*   * check for understanding * provide assistance with note-taking |
| **Guided Practice \*** | Review handouts Cosmetology Sanitation Rules – Texas and A Guide for Nail Salon Workers. Discuss the safety rules and how important they are to salon employees and customers. Distribute the handout The Science of Handwashing and log on to the Centers for Disease Control and Prevention (CDC) website so that students may take notes:   * Show Me the Science – How to Wash Your Hands CDC recommends cleaning hands in a specific way to avoid getting sick and spreading germs to others.<http://www.cdc.gov/handwashing/show-me-the-science-handwashing.html>   Guide the students through the steps.  Demonstrate how to properly wash your hands and then have students practice this on their own. Encourage them to sing the Happy Birthday song twice or sing the ABC song as they wash their hands.  Distribute the handouts Foot Spa and Foot Basin Sanitation Requirements, Guideline for Cleaning and Disinfecting Manicuring and Enhancement Equipment, Non-Whirlpool Foot Basin/Tub Cleaning and Disinfection Record and Whirlpool Foot Spa Instructions and review each handout.  Review the handouts as these are industry recognized standards to prevent infections in the salon environment.  Demonstrate the two decontamination methods of cleaning, disinfecting, and sterilizing. Show how to use the autoclave correctly and how it works to sterilize tools. Allow the students an opportunity to practice.  Demonstrate the proper use of disinfectants and the different types used. Be sure to discuss safety with the chemicals used. Show students how to disinfect work surfaces, foot spas and pedicure equipment according to code. Allow the students to practice.  Optional: Gather supplies for the Bacteria Candy Activity.  Distribute 12 x 18-inch papers to students. Inform students that this is an individual project but they may assist each other in the process. Read the main instructions to the students. Students may write in the definitions on their own using their textbook or notes.  If candy is not all used on the project, it can be eaten as a snack (follow school guidelines for food/candy consumption in the classroom). Allow 30 minutes for students to complete project and one day to fully dry before displaying.  Assist students during the project process to ensure they understand the bacteria concept.  *Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*   * providing peer tutoring * checking for understanding |
| **Independent Practice/Laboratory Experience/Differentiated Activities \*** | Before class begins, print the Infections Flashcards on cardstock and separate. Place the cards in a basket.  Divide the class into subgroups of two. Allow one partner to pick an infection card to research. Partners must locate information for chosen topic from reliable sources and create a multi-media presentation.  Multi-media presentation programs include Emaze®, Glogster EDU, Prezi, Snapguide® or Microsoft® applications such as PowerPoint, Publisher® or Word®.  Include the following in the research in this order:   * description of infection * exposure to clients * preventative methods * decontamination method needed   Distribute Rubric for Preventing Infections in a Salon Presentation and review so that students understand what is expected.  Students should be prepared to present the information to the class.  *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 * assisting student in recalling information * providing praise and encouragement |
| **Lesson Closure** | Review lesson objectives, terms, and definitions.  Assign students to read the article below:   * Danger…at Your Local Salon  Just 36 hours after getting a pedicure at an upscale nail salon near her home in Lafayette Hill, Pennsylvania, Jamie Joffe, 38, had a fever of 101 degrees and a very scary-looking toe.<http://www.health.com/health/article/0,,20411389,00.html>   Re-distribute the handout Danger in Your Local Salon and instruct the students to re-read each statement and make any corrections.  Students should use the space under each statement to note the page, column, and paragraph(s) where they find information to support their thinking. |
| **Summative/End of Lesson Assessment \*** | Students will present their research information to the class and will be assessed with the 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:**   * Frangie, C. M. (2012). *Milady standard cosmetology*. Clifton Park, NY: Cengage Learning. * Backe, J. (2016). *Milady standard cosmetology*. Clifton Park, NY: Cengage Learning. * *Salon fundamentals.* (2012). Evanston, IL: Pivot Point International.   **Websites:**   * Centers for Disease Control and Prevention (CDC)  Keeping hands clean is one of the best ways to prevent the spread of infection and illness.<http://www.cdc.gov/features/handwashing/> * Occupational Safety and Health Administration (OSHA)  Nail Salon Workers: Stay Healthy and Safe While Giving Manicures and Pedicures <https://www.osha.gov/pls/publications/publication.html> * Texas Department of Licensing and Regulations  The leader in public service, customer satisfaction, and innovation<http://www.tdlr.texas.gov/index.htm> * United States Environmental Protection Agency (EPA)  Guidance from the EPA and the Centers for Disease Control and Prevention (CDC) <http://www.epa.gov/pesticides/> |
| **Additional Required Components** | |
| **English Language Proficiency Standards (ELPS) Strategies** | * Use “word wall” for vocabulary words * Work with a peer tutor * Peer to read materials * Highlighted materials for emphasis * Shortened simplified instructions |
| **College and Career Readiness Connection[[1]](#footnote-1)** |  |
| **Recommended Strategies** | |
| **Reading Strategies** | **Current events**   * Students can research the day’s headlines for any illnesses or diseases discussed in the lesson or relevant to the topic.   Articles pertaining to this lesson that students may read include:   * How to Prevent Toenail Fungus and Infections   Toenail fungus and toenail infections are common, but there are ways to prevent them from occurring.<http://www.ehow.com/how_4891645_prevent-toenail-fungus-infections.html> * Risks of Using Another Person’s Nail Clipper   Sharing personal hygiene equipment should be avoided whenever possible and this includes nail clippers.<http://www.ehow.com/list_7435213_risks-another-person_s-nail-clipper.html> * Salon Health & Safety Policies  Some salon activities pose risks to the health and safety of clients and staff. Salons establish policies to address and minimize these risks.<http://www.ehow.com/facts_7599114_salon-health-safety-policies.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** | Go confidently in the direction of your dreams. Live the life you have imagined.  **-Henry David Thoreau**  We must be willing to let go of the life we have planned, so as to have the life that is waiting for us.  **-E. M. Forster**  If you love life, don’t waste time, for time is what life is made up of.  **-Bruce Lee**  I pretty much make time for that weekly manicure. **-Yancy Butler**  I can scarcely stand to have a manicure. I have to have them because you don’t want to look like a disgusting human being – it’s self-care and it has to happen, but I get very restless. **-Laura Linney** |
| **Writing Strategies**  **Journal Entries + 1 Additional Writing Strategy** | **Journal Entries:**   * Strep throat is caused by the bacteria …. (streptococci). The signs and symptoms are …. * Tetanus, commonly called “lockjaw”, is caused by …. (bacilli) and can cause …. * Human Immunodeficiency Virus can be contracted by …. * Hepatitis has many different symptoms, including …. * A dirty salon means …….   **Writing Strategy:**  RAFT Writing Strategy   * Role – customer * Audience – salon owner * Format – letter of complaint * Topic – nail fungus   Write a letter to the salon owner complaining of having contracted a nail fungus. |
| **Communication**  **90 Second Speech Topics** | * Cosmetologists be aware of sanitation precautions because … * Five guidelines or precautions cosmetologists should follow are … |
| **Other Essential Lesson Components** | |
| **Enrichment Activity**  (e.g., homework assignment) | Have students produce large scale 3-D models of all the bacteria classifications discussed in this lesson including a summary of what diseases each of them cause.   Students can compare and contrast various MSDS sheets from products used in the salon. |
| **Family/Community Connection** | Have students examine their homes or the salon/lab setting. Have them list areas of potential sanitation hazards and what can be done to correct or prevent a contamination issue. |
| **CTSO connection(s)** | **SkillsUSA**  <http://skillsusa.org/>  Note: Students who compete in the Cosmetology competitions in SkillsUSA must have knowledge of how to safely handle a blood spill and maintain a clean and sanitary work environment. Points will be deducted from the overall score should students not follow safety and sanitary guidelines.  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.  Possible idea:  Students can meet with the student council or school administration about providing hand sanitizers in all restrooms and/or classrooms to prevent the spread of the common cold and/or flu. |

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)