Key Words and Phrases for Concept Map on
How Antibiotics and Chemical Agents Affect Bacterial Structures and Functions

antibiotic inhibits peptidoglycan synthesis
inhibit synthesis of acid-fast cell walls
antibiotic or disinfectant alters cytoplasmic membrane
antibiotic/chemical agent inhibits
normal nucleic acid replication
inhibits bacterial RNA polymerase
antibiotic/chemical agent binds to prokaryotic ribosomal subunits
binds to 30S ribosomal subunit
binds to 50S ribosomal subunit
bind to transpeptidases
bind to peptides of peptidoglycan monomers
binds to bactoprenol
osmotic lysis
blocks incorporation of mycolic acid into cell wall
blocks incorporation of arabinogalactan into cell wall
inhibits bacterial topoisomerase enzymes
prevents synthesis of tetrahydrofolic acid
puts nicks in the DNA strands of certain bacteria
causes leakage of cellular needs
prevents the transfer of the peptidyl tRNA from the A-site to the P-site
interferes with the proofreading process that helps assure the accuracy of translation
prevents peptidyltransferase from forming peptide bonds
anticodons of charged tRNAs cannot align with the codons of the mRNA
interferes with the binding of the 50S subunit to the initiation complex
blocks translation of mRNA into protein