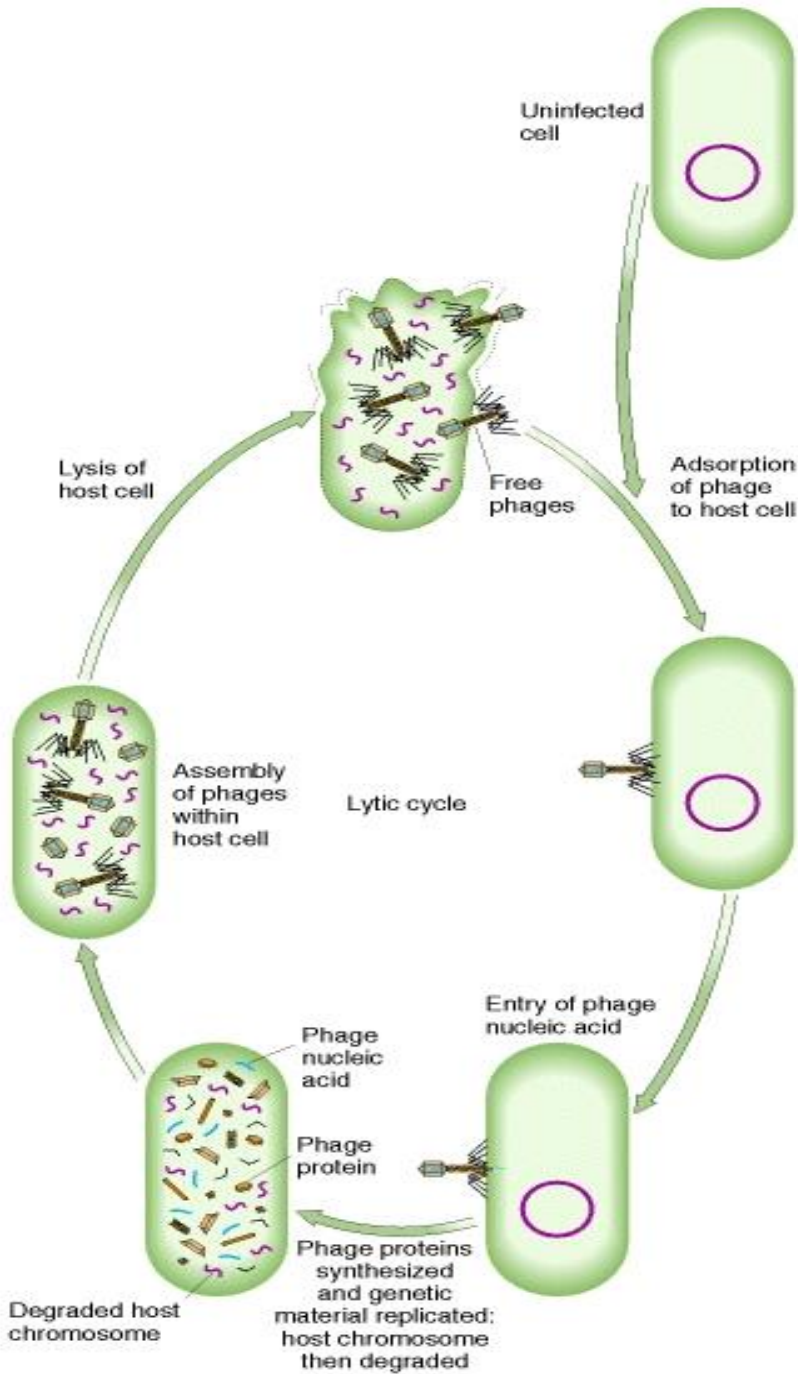


Describe the sequence of events that occur when the virulent phage T4 infects susceptible host cells



Most bacteria are susceptible to attack by bacteriophages (the word literally means “eaters of bacteria”). During infection, a phage attaches to a bacterium and injects its genetic material into the bacterial cytoplasm. The phage genetic information then takes over the machinery of the bacterial cell by turning off the synthesis of bacterial components and redirecting the bacterial synthetic system to make phage components. Ultimately, many phage descendants are released when the bacterial cell wall breaks open. This bursting process is called lysis. Phage T4 is capable of undergoing only a lytic lifecycle, not the lysogenic one