CONCEPT: BACTERIOPHAGE: FILAMENTOUS PHAGE INFECTIONS

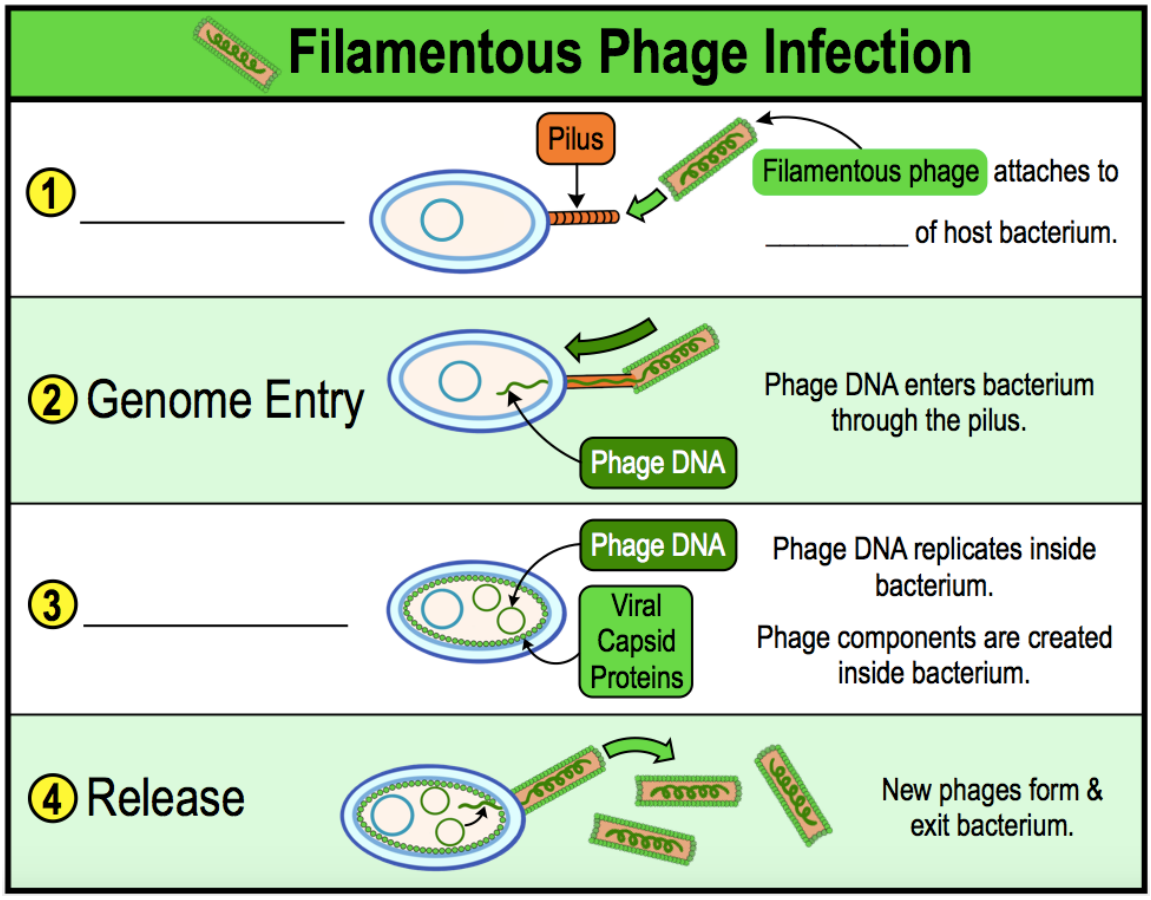
●**Filamentous Phages:** phages that take the shape of long fibers (_____).

□ Causes *productive* infections in bacterial cells but do _____ kill/lyse the cell.

□ Instead of lysing the cell, phage particles _____ the cell as they assemble; a process known as **extrusion**.

□ Infected cells grow _____ than uninfected cells.

EXAMPLE: Filamentous M13 phage replication.



PRACTICE: Filamentous phages are unique in their ability to do what?

a) To build and release new phages without killing the host cell.

b) To cause the host cell to replicate and synthesize new viral DNA and viral proteins.

c) To cause the host cell to lyse or burst open releasing new, infectious phages.

d) To perform the lysogenic and lytic cycles within the host cell at the same time.

PRACTICE: Some filamentous phages infect the host bacterium using the bacterium's pilus. How does this process work?

a) The phage uses the pilus to begin the process of entering the bacterium via endocytosis.

b) The phage uses the pilus to trigger cell lysis to release the newly created filamentous phages.

c) The phage transfers its viral DNA through the pilus into the bacterium.