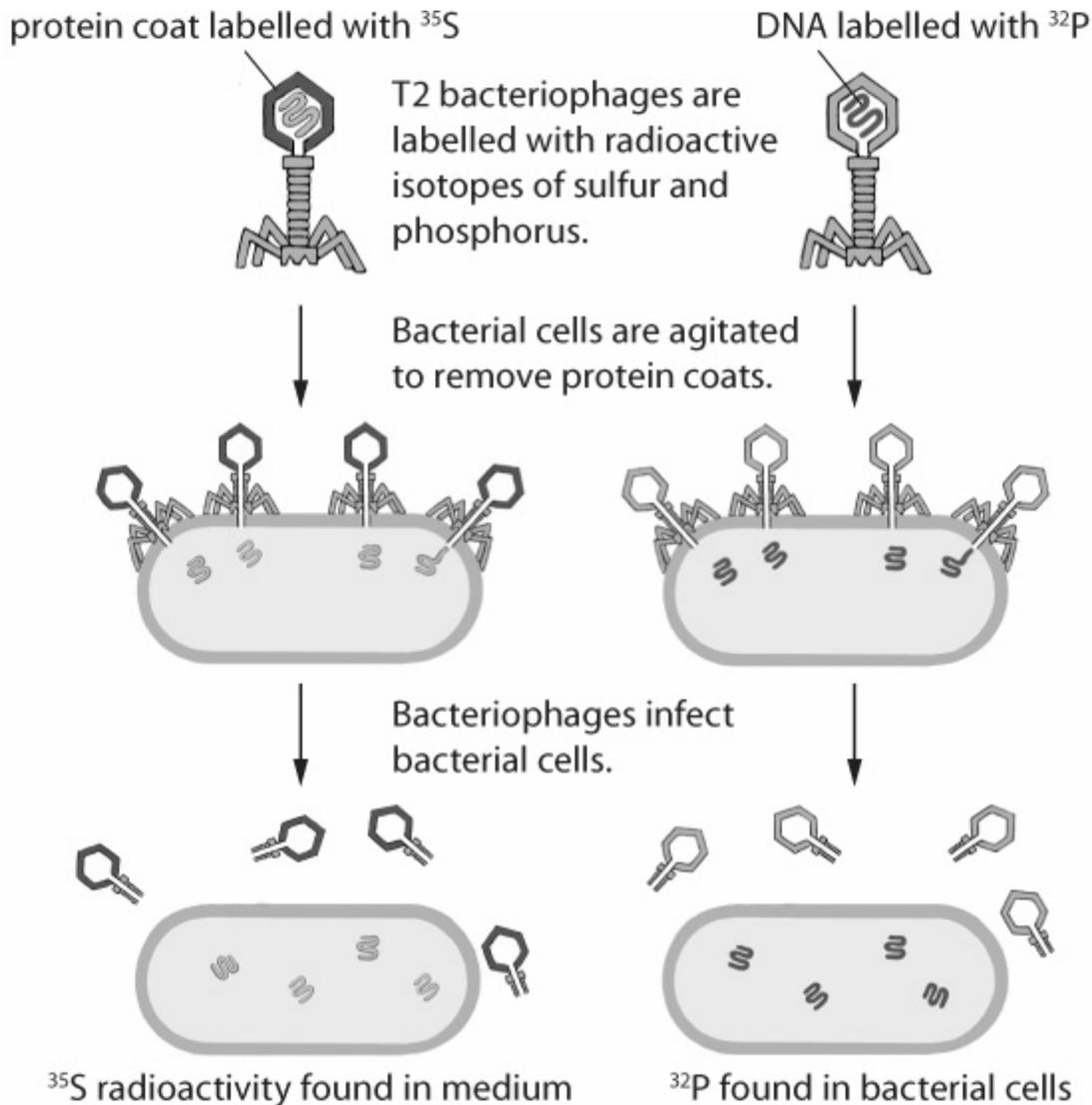


Hershey-Chase Experiment



The Hershey-Chase experiment. The scientists knew that virtually all of the phosphorus present in the T2 virus is in its DNA, while sulfur is found only in its protein coat. Thus, they prepared two different samples of the T2 virus: one tagged with radioactive phosphorus (^{32}P) and the other tagged with radioactive sulfur (^{35}S). Bacterial cells that were infected by viruses with radioactive DNA were radioactive, indicating that the viral DNA entered the host cell. In contrast, bacterial cells that were infected by viruses with radioactive protein coats were not radioactive, indicating that no viral protein entered the host cell. Therefore, DNA must direct the cell to produce new viruses.