The Hershey-Chase Experiment

Bacteriophages were used to show that DNA, not protein, is the genetic material of viruses.

1. T2 phages were labeled with radioactive isotopes.

Virus's protein coat labeled with $^{35}$S  
Virus's DNA core labeled with $^{32}$P

2. The phages infect *E. coli* bacterial cells.

Bacterium

3. Bacterial cells were spun to remove the virus's protein coats.

$^{35}$S radioactivity remained in phages.  
$^{32}$P radioactivity moved into cells.