Questions:

What are the 5 broad groups of DNA manipulation enzymes?

What is the difference between exonucleases and endonucleases?

What is the purpose of DNA ligase in cells? What is its role in recombinant DNA manipulations?

What is the role of DNA polymerases? What are the four types of DNA polymerases used in genetic engineering?

What is the function of alkaline phosphatase?

What is the value of restriction enzymes to the molecular biologist?

Describe how a restriction enzyme cuts double stranded DNA.
What is the importance of type of cut and recognition sequence?

What is the difference between a 4-base cutting restriction enzyme and a 6-base cutting one?

What components are needed in a restriction enzyme digest?

What is the purpose of agarose electrophoresis?

How do we visualize DNA in an agarose gel?

What is autoradiography? What is its value in visualizing DNA?

What techniques can be used to label DNA?

How is DNA fragment size estimated on a gel?