

**VOCABULARY LIST
WORKING DEFINITIONS
TEACHER GUIDE**

Agarose Gel – a polysaccharide derivative of algae that contains microscopic pores and acts as a molecular sieve.	BamHI – Enzyme used to cut the DNA into fragments.
Banding pattern – Pattern created when different fragment lengths of DNA travel different distances in the gel	Biotechnology -(will vary) Using living organisms or parts of those organisms as a scientific tool .
Bromophenol blue- one of the two tracking dyes contained in the loading buffer.	Buffer- Substance that stabilizes the pH of solutions by absorbing or releasing H ⁺ ions.
Carolina Blu – positively charged dye used to stain the DNA .	Database – information already obtained and recorded.
DNA Fingerprint – the pattern created by different fragment lengths of DNA traveling different distances in a gel.	Enzyme digest – the cutting of a piece of DNA into fragments by an enzyme.
Gel electrophoresis – Process by which molecules are separated by size, charge and shape using agarose gel and electric current.	Genomic DNA - The DNA contained in the nucleus of the cells.
Ladder – Same as marker or standard. A set of DNA fragments whose base pair lengths are known.	Lambda DNA – DNA found in a virus and used in this lab.
Running Buffer – buffer used in the gel box to complete the circuit between the anode and cathode.	Marker - Same as ladder or standard. A set of DNA fragments whose base pair lengths are known.
Micropipet - scientific tool used to measure small amounts of solutions.	Mutation – changes in the DNA code
Polymorphism – differences in the DNA sequence in a population due to mutations.	Recognition sequence – DNA sequence recognized by the restriction enzyme, indicates where cut should occur.
Recognition site – location on the DNA where the restriction enzyme makes it's cut.	Restriction enzyme buffer – Buffer that is necessary to keep enzyme at it's optimum pH.
Restriction Enzyme – enzyme used to cut DNA into fragments.	RFLP – Restriction Fragment Length Polymorphism.
Sample loading buffer – buffer added to the sample in order to provide correct salt content, weight and tracking dyes.	Standard Same as ladder or standard. A set of DNA fragments whose base pair lengths are known.
Uncut DNA – DNA fragment that has not been cut by restriction enzymes.	Unit of Activity – the amount of enzyme required to digest 1 ug of Lamda DNA / hr at 37 degrees.
Xylene cyanol -one of the two tracking dyes contained in the loading buffer.	

