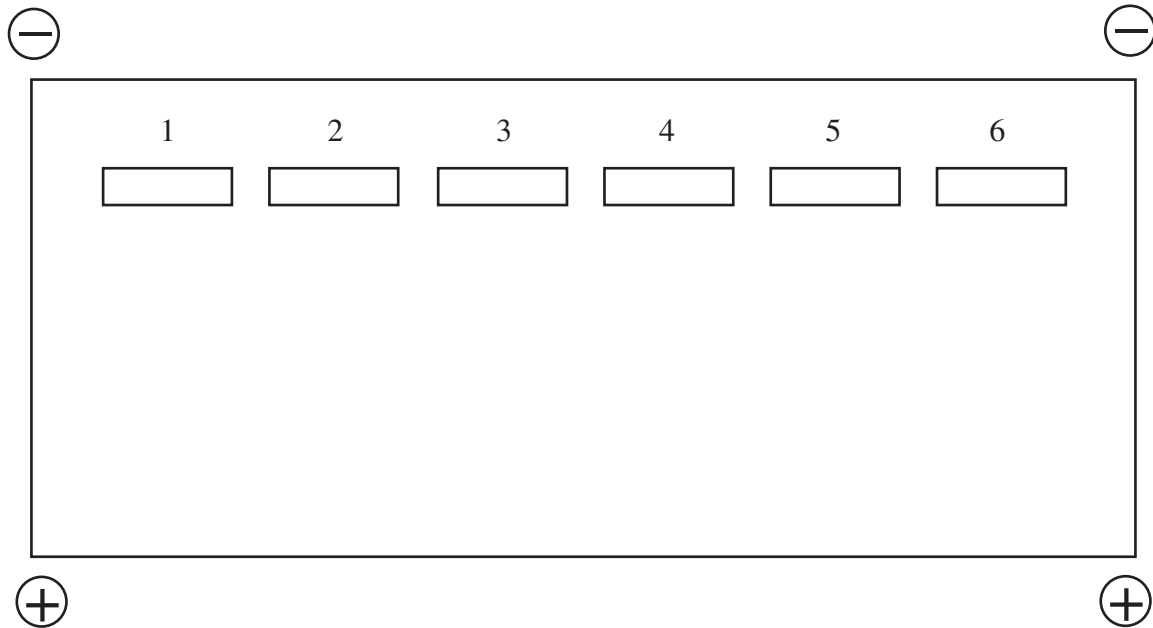


Post-Lab Questions

1. Draw the bands observed in the gel. If available, use colored pencils. Otherwise label the bands with the color observed.



2. Decode the bands for each parent and child using Figure 3 in the *Background* section. What traits does each person possess?
 - Father —
 - Mother —
 - Child 1 —
 - Child 2 —
 - Child 3 —
3. Were there any traits the children had that the parents did not have? What does this tell us about the *genotypes* of the parents?
4. Using terms defined in the *Background* section, explain why people may look very different even when closely related.
5. Genetic counseling is an up and coming branch of medicine that involves the use of tests, such as gel electrophoresis, to find out more information on the genotypes of a couple to identify any recessive diseases that may potentially affect their children. Imagine that couple discovers through genetic counseling that both of them are carriers of the CFTR gene for cystic fibrosis, a recessive genetic disease. Although neither parent has the disease, what are the chances of their first child having the disease?