

INTRODUCTION

The technique of DNA fingerprinting was first developed by an English geneticist, Dr. Alec J. Jeffreys who invented this technique in the year 1984. He found that in the DNA there are sequences known as VNTRs (variable number of tandem repeats) which are repeated again and again. The number of repeated sequence is different in different people. By finding out the length of the DNA and the number of DNA sequences one can perform the identity test.

CHAPTER 2 GOALS

By the end of this chapter, you will be able to:

- Extract DNA from cheek cells using 2 different methods
- Explain the purpose of each step in the DNA extraction
- Amplify your DNA using PCR
- Explain how PCR works
- Use Gel Electrophoresis to verify the presence of DNA in your sample
- Send your DNA sample to be sequenced
- Use the results of the sequencing to analyze your DNA and compare it to known samples of various origins

WHAT DO YOU ALREADY KNOW?

Discuss the following questions with your partner and write down your ideas. Be prepared to discuss responses with the class.

1. What are some of the reasons that a DNA sample might be sequenced and analyzed?

2. Why is it necessary to amplify the DNA?