Online Resources:

Animations from Khan Academy

Genetics 101 Part One
http://www.youtube.com/watch?v=ubq4eu_TDFc
This 4 ½ minute video clip gives a great description of DNA, genes, and how they function in making us a unique organism. Great visuals to help students understand some key concepts for the Crime Scene Investigation Lab.

Genetics 101 Part Two
This short 2 minute video clip made by Khan Academy discusses why we humans look so different from one another even though 99.9% of our DNA is identical!
https://www.khanacademy.org/science/biology/heredity-and-genetics/v/genetics-101-part-2-what-are-snps

Genetics 101 Part 3
https://www.khanacademy.org/science/biology/heredity-and-genetics/v/genetics-101-part-3-where-do-your-genes-come-from

This 4 ½ minute video clip by Khan Academy gives a great description of how our genes are passed on to us from our parents. The content of this video is applicable to a discussion we will have on paternity testing.

Interactive Animation from University of Utah Health and Sciences

What is DNA?
http://learn.genetics.utah.edu/content/molecules/dna/

What is a Chromosome?
http://learn.genetics.utah.edu/content/chromosomes/intro/

What is a Gene?
http://learn.genetics.utah.edu/content/molecules/gene/

Additional Resources:

Crime Lab:
This activity is great for introducing kids to the overall job of investigating a crime scene. Students collect evidence in the form of hair, shoe print, straw with DNA etc. There is a very simple DNA analysis at the end of the lab which asks students to pick

match the DNA profile of the suspect with the DNA profile created from DNA found on a straw at the scene of the crime.
http://www.imcpl.org/kids/blog/?p=2626

DNA extraction:
This virtual lab provides a great overview of the process of extracting DNA from human cells!
http://learn.genetics.utah.edu/content/labs/extraction/

DNA Fingerprinting:
http://www.youtube.com/watch?v=ZxWXCT9wVoI
This 5 ½ minute video digs a little deeper into the discovery of DNA fingerprinting.

Gel electrophoresis:
http://www.dnalc.org/resources/animations/gelelectrophoresis.html
This interactive animation explains how scientists use gel electrophoresis to separate DNA fragments by size.

Practice matching suspect to crime scene DNA profiles here:
https://www.google.com/search?q=dna+fingerprints&espv=2&biw=1436&bih=805&source=lnms&tbm=isch&sa=X&ved=0CAYQ_AUoAWoVChMIz96DsbuwxwIVR5qACh2EAw3V#imgrc=9RSRKHAjvteryM%3A