

Edmore Public School
706 Main St, Edmore, ND 58330

Biology Lesson Plan	
Dates: April 22 - 26, 2024	Time and Period: 2:32 - 3:25 PM, Seventh Period
Performance Standard: HS-LS3-1 Construct an explanation to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring. HS-LS3-2 Make and defend a claim based on evidence that inheritable genetic variations result from various factors.	

Monday, April 22	
Topic	DNA Forensics and Color Pigments, pp. 262 - 264
Objectives	Perform DNA forensics using food coloring to enhance their understanding of DNA fingerprinting,
Bell Ringer	In three steps, state the steps for DNA fingerprinting
Procedure / Instructional Delivery	Guided Practice, Interactive Discussion, Hands - on / Laboratory Activity
Assessment	DNA Forensics and Color Pigments, pp. 262 - 264

Tuesday, April 23	
Topic	Introduction to Forensics - DNA Fingerprinting Completion of Laboratory Activity
Objectives	Describe what DNA fingerprinting is, what it is used for, and how it is used in paternity testing and forensics
Bell Ringer	What are the factors that lead to unique fingerprints?
Procedure / Instructional Delivery	Guided Practice, Interactive Discussion, Hands - on / Laboratory Activity
Assessment	Introduction to Forensics - DNA Fingerprinting Completion of Laboratory Activity

Wednesday, April 24	
Topic	Genetic Engineering, pp. 265 - 267
Objectives	Discuss how DNA can be modified to create genetically modified organisms and treat diseases.
Bell Ringer	Define <i>Recombinant DNA</i>
Procedure / Instructional Delivery	Guided Practice, Interactive Discussion, Hands - on / Laboratory Activity
Assessment	Genetic Engineering, pp. 265 - 267

Thursday, April 25	
Topic	Bacterial Transformation
Objectives	Use a plasmid vector to transform bacteria with genes for Green Fluorescent Protein (GFP) and antibiotic resistance in a controlled experiment.
Bell Ringer	Define <i>plasmid vector</i>
Procedure / Instructional Delivery	Guided Practice, Interactive Discussion, Hands - on / Laboratory Activity
Assessment	Bacterial Transformation Worksheet

Friday, April 26	
Topic	(Continuation) Bacterial Transformation
Objectives	Use a plasmid vector to transform bacteria with genes for Green Fluorescent Protein (GFP) and antibiotic resistance in a controlled experiment.
Bell Ringer	What is Green fluorescent protein (GFP)?
Procedure / Instructional Delivery	Guided Practice, Interactive Discussion, Hands - on / Laboratory Activity
Assessment	Bacterial Transformation Worksheet

