Inquiry Design Model (IDM) Blueprint™	
“Lesson Title” | OSEU 2: Identity & Resiliency	
Compelling Question	**Unit Compelling Question: What does it mean to be human?** **Lesson Compelling Question: Where do I come from?** **OSEU: Identity and Resiliency**
Standards and Practices	**2.1 Demonstrate knowledge of the Oceti Sakowin people’s understanding of the interrelationship of spiritual, social, and emotional health.** **2.3 Recognize that there is a continuum of tribal identity, ranging from assimilated to traditional lifestyle, that includes each unique or individual member within the Oceti Sakowin.** **MS-LS3-2 Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information while sexual reproduction results in offspring with genetic variation.** **MS-LS4-4 Construct an explanation based on evidence that describes how genetic variation of traits in a population increases some individuals’ probability of survival and reproduction.**
Staging the Question	**Find pictures online of famous families of actors, musicians or athletes. Have students sort the pictures based on the characteristics and traits of family members. Due to variation in traits there should be some outliers.** **Ask why do some family members look similar while others look different?**

Supporting Question 1	**Supporting Question 2**	**Supporting Question 3**
How do offspring receive traits from their parents?	**Where did my genetic material come from?**	**How am I unique?**
Formative Performance Task	**Formative Performance Task**	**Formative Performance Task**
Begin with kickoff video “What does it mean to be human?” Let student know that this unit question will guide the following unit. **Have students define the following terms using the vocab app connected to their online curriculum. Following this definition, have students compare and contrast the paired vocab:** **1. Trait** **2. Characteristic** **1. Inheritance** **2. Hereditary** **1. Dominate Alleles**	**Prior to the demonstration lab summative assessment, students will complete an online interactive from their science curriculum modeling how traits are passed from parents to offspring via a set of chromosomes.** **Students will answer the three questions in the journal portion on their interactive.**	**Think, Pair, Share:** **What race, nationality or cultural group do you identify with? What makes that group unique from other groups? Have you even been generalized into a group that you did not feel a part of? How did it feel? What makes you, you?** **Class discussion:** **How can labels divide us?** **How can labels bring us together?** **Create a collage highlighting groups or characteristics that students feel connected to or that describe them.**

2. Recessive Alleles **1. Heterozygous** **2. Homozygous** **Question to consider through a journal response: How would I identify who I am as a person?**			
Featured Sources		**Featured Sources**	**Featured Sources**
http://www.wolakotaproject.org/oseu-two/oseu-two-interview-with-stephanie-charging-eagle/ **Lakota Identity** **https://www.youtube.com/watch?v=2FPpwxHtXLU** **John Green: What does it mean to be human?**		**https://www.youtube.com/watch?v=Mehz7tCxjSE** **Mendel's Peas: TedED** **http://www.glencoe.com/sites/common_assets/science/virtual_labs/E09/E09.html** **Online trait interactive**	**http://www.wolakotaproject.org/oseu-two-lowell-amiotte-were-not-all-the-same/**
Summative Performance Task	**Argument**	**Students will complete Punnett Squares demonstrating the probability of inheriting alleles. Students will calculate the probability of different genes being expressed based on the parent crosses. Students will predict the F1 generation of a variety of homozygous and heterozygous crosses.**	
	Extension	**Students will be given the offspring and will work backward to identify the genotype and phenotype of their parent crosses.**	
Taking Informed Action	**Students can use the Quest Kickoff to investigate genetic technologies used to manipulate fruits available in the supermarket. Students will propose newly engineered fruits identifying desirable traits and characteristics they will breed into their new fruit.**		