

Figure 3.2: Example of a Learning Progression for Planning Assessments

Directions: Start from the bottom of the table and build up toward and beyond the standard.			
Step	Sequence of Knowledge and Skills for Students to Demonstrate	Assessment Opportunities and Ideas	Instructional Strategies
7	Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment. (MS-LS4-4)	CSA: Population study over time	Group analysis of CER examples
6	Analyze a real or simulated scenario to predict how a population might evolve in response to a change, specifically demonstrating understanding of the cause-effect relationship.	CFA 3: Predicting population response CER	Interactive simulation on rabbits and wolves
5	Use data to explain how genetic variation is essential for long-term population survival.	CFA 2: Genetic variation CER	Case study with data: Stick-bug color variation
4	Understand which advantageous traits are more likely to survive and reproduce.	Informally assessed	Case study: Pepper moth
3	Understand that traits can provide advantages and disadvantages or can be neutral, depending on the environment.	Informally assessed	Interactive simulation on how population changes over time
2	Understand that genetic variation can be impacted by biological and environmental factors.	CFA 1: Biological and environmental factors	Sorting activity on environmental challenges and biological factors
1	Define <i>genes</i> , <i>traits</i> , and <i>hereditary</i> .	Informally assessed	Simulation with Punnett squares

Source for standard: NGSS Lead States, 2013.