

Unit 8.1: Teacher Background Content Resources

NGSS PE(s) or Subcomponent(s)	Associated Lesson(s) or Unit Challenge	Title of resource with link	Brief Description of Resource
All PEs in Unit	Whole Unit	Unit 8.1_Misconceptions	A list of preconceptions & misconceptions compiled by the Mi-STAR curriculum team.
LS4-4, LS4-6	Whole Unit	Simulating Natural Selection (2018) From YouTube user Primer	This short video gives an excellent overview of how natural selection works and why natural selection is not goal oriented.
LS4-4, LS4-6	Whole Unit	Cause and Effect Lesson (N.D.) from Teachervision.com	This online lesson defines cause and effect and describes how teachers can explore cause and effect with their students in the classroom.
LS4-4	Whole Unit	Evidence (2015) from The Argumentation Toolkit	Videos that describe what is considered evidence when constructing a CER (Claim-Evidence-Reasoning) and ways to support students in learning about and using evidence.
LS4-4	Whole Unit	Reasoning (2015) from The Argumentation Toolkit	Videos that describe what reasoning is when constructing a CER (Claim-Evidence-Reasoning) and ways to support students in learning about and using reasoning.
LS3-1 (LS3.B)	L02, L03	LS3B - Variation of Traits (2013) from Bozeman Science	A video that explains how variation is created in a population over time. Variation in offspring is caused by genetic recombination, mutations and environmental effects. This video delves into

			more content on genetics than is covered in this unit, but provides helpful background.
LS3-1 (LS3.B)	L03	What is a gene mutation and how do mutations occur? (2018) from National Institute of Health	An article that describes how gene mutations occur. This article is beyond the scope of what students need to understand for the Unit, but provides useful background content for teachers.
LS3-1 (LS3.B)	L03	Variations in the genetic code Fact Sheet (2016) from Centre for Genetics Education	A fact sheet that describes how variation in gene sequences occurs.
LS4-4 (LS4.B)	L04	LS4B - Natural selection (2013) from Bozeman Science	A video that defines natural selection as differential reproductive success and explains how natural selection shapes organisms on our planet through variation and selection.
LS4-6 (LS4.C)	L02, L04	LS4C - Adaptation (2013) from Bozeman Science	A video that defines adaptations and explains how organisms can become better adapted to their surroundings using the process of natural selection.
LS3-1 (LS3.B), LS4-4 (LS4.B), LS4-6 (LS4.C)	L02, L04	Natural selection - Crash Course Biology #14 (2012) from CrashCourse	A video that explains the process of natural selection. LS3.B (variation of traits) starts at 4:01 LS4.B (natural selection) starts at 1:27 LS4.C (adaptation) starts at 2:56
LS3-1 (LS3.B), LS4-4 (LS4.B), LS4-6 (LS4.C)	L04	Darwin, evolution, & natural selection (2018) from Khan Academy	An article that describes how populations and species of organisms change over time.