Yellowstone Thermal Features:
Applicable Montana Content Standards
(2016 Montana Science Standards)

Lesson: Mentos and Diet Coke Geysers	**Content Standards:** K: ● plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object ● analyze data to determine whether a design solution works as intended to change the speed or direction of an object with a push or a pull Grades 6-8: ● construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time scales and spatial scales Grades 9-12: ● develop a model to illustrate how earth's internal and surface processes operate at different spatial and time scales to form continental and ocean-floor features
Lesson: Alka-Seltzer Geysers	**Content Standards:** Grade 5: ● develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, or atmosphere interact Grades 6-8: ● construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time scales and spatial scales
Lesson: Creating a Hot Springs	**Content Standards:** Grade 3: ● construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all Grade 5: ● develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, or atmosphere interact Grades 9-12: ● develop a model to illustrate how earth's internal and

	surface processes operate at different spatial and time scales to form continental and ocean-floor features
Lesson: Flour Powered Supervolcano	**Content Standards:** Grade 2: ● use information from several sources to provide evidence that Earth events can occur quickly or slowly Grade 5: ● develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, or atmosphere interact Grades 6-8: ● analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions ● construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time scales and spatial scales Grades 9-12: ● develop a model to illustrate how earth's internal and surface processes operate at different spatial and time scales to form continental and ocean-floor features
Lesson: Mapping Yellowstone's Thermal Features	**Content Standards:** Grade 4: ● analyze and interpret data from maps as evidence to make a claim about patterns of Earth's features Grades 6-8: ● analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions ● construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time scales and spatial scales Grades 9-12: ● develop a model to illustrate how earth's internal and surface processes operate at different spatial and time scales to form continental and ocean-floor features