



Operation Montserrat - Grades 5 - 8

2020 Colorado Academic Standards & Essential Skills and Science and Engineering Practices

Colorado Essential Skills and Science and Engineering Practices:

1. Make observations to produce data to serve as the basis for evidence for an explanation of a phenomenon or test a design solution. (Planning and Carrying Out Investigations) (Personal: Personal responsibility).
2. Apply scientific ideas to solve design problems. (Constructing Explanations and Designing Solutions) (Entrepreneurial: Inquiry/Analysis).
3. Construct and argument with evidence, data, and/or a model. (Engaging in Argument from Evidence) (Personal: Initiative/Self-direction)
4. Identify the evidence that supports particular points in an explanation. (Constructing Explanations and Designing Solutions) (Entrepreneurial: Creativity and Innovation)
5. Resist distractions, maintain attention, and continue the task at hand through frustration or challenge. (Perseverance/Resilience)
6. Recognize that problems can be identified, and possible solutions can be generated. (Critical Thinking/Problem Solving)
7. Find information through the use of technologies. (Use Information and Communications Technologies)
8. Model positive behavior for others. (Leadership)

Science

5.3.3 Earth's major systems interact in multiple ways to affect Earth's surface materials and processes.

MS.3.8 Humans depend on Earth's land, ocean, atmosphere, and biosphere for different resources, many of which are limited or not renewable. Resources are distributed unevenly around the planet as a result of past geologic processes.

MS.3.9 Mapping the history of natural hazards in a region and understanding related geological forces.

HS.3.4 Earth's systems, being dynamic and interacting, cause feedback effects that can increase or decrease the original changes, and these effects occur on different time scales, from sudden (e.g., volcanic ash clouds) to intermediate (ice ages) to very long-term tectonic cycles.



HS.3.8 The biosphere and Earth's other systems have many interconnections that cause a continual co-evolution of Earth's surface and life on it.

HS.3.10. Natural hazards and other geological events have shaped the course of human history at local, regional, and global scales.

Mathematics

5.NBT.B. Number & Operations in Base Ten: Perform operations with multi-digit whole numbers and with decimals to hundredths.

5.MD.B. Measurement & Data: Represent and interpret data.

5.G.A. Geometry: Graph points on the coordinate plane to solve real-world and mathematical problems.

6.NS.C. The Number System: Apply and extend previous understandings of numbers to the system of rational numbers.

6.EE.B. Expressions & Equations: Reason about and solve one-variable equations and inequalities.

7.NS.A. The Number System: Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

7.EE.B. Expressions & Equations: Solve real-life and mathematical problems using numerical and algebraic expressions and equations

Reading, Writing and Communicating

5.1.1 Collaborate in discussions that serve various purposes and address various situations.

5.1.2 Present to express an opinion, persuade, or explain/provide information.

5.4.1 Research to locate, summarize, synthesize and document information from print and digital sources, and communicate findings appropriately.

6.2.2 Develop, organize, and present ideas and opinions effectively.

7.4.1 Pose research questions, synthesize answers from multiple credible sources, and present conclusions in an appropriate format.

8.1.1 Engage in effective collaborative discussions and analyze information presented.

8.4.1 Pose important questions; identify, locate, and evaluate sources; extract and synthesize relevant information, and communicate findings appropriately.