Appendix A

NCTM Standards addressed:
Number and Operations Standard for Grades 6 - 8
Understand numbers, ways of representing numbers, relationships among numbers, and number systems
  • Develop meaning for integers and represent and compare quantities with them

Communication Standard for Grades 6 - 8
Organize and consolidate their mathematical thinking through communication
Communicate their mathematical thinking coherently and clearly to peers, teachers, and others

Connections Standard for Grades 6 - 8
Recognize and apply mathematics in contexts outside of mathematics

California Standards addressed:
Grade 6 & 7 - Mathematical Reasoning
1.1 Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, identifying missing information, sequencing and prioritizing information, and observing patterns.

Grade 7 - Number Sense
2.3 Understand the meaning of the absolute value of a number; interpret the absolute value as the distance of the number from zero on a number line; and determine the absolute value of real numbers.

Colorado Standards Addressed:
Grades 5 - 8
1.1 Demonstrating meanings of integers, rational numbers, percents, exponents, square roots, and pi (π) using physical materials and technology in problem-solving situations.
Sixth grade students will:
  • locate integers on the number line.
  • identify subsets of rational numbers, including counting and whole numbers and integers.

Seventh grade students will:
  • locate integers and positive rational numbers on the number line.
  • identify subsets of rational numbers, including counting and whole numbers and integers.

1.2 Reading, writing, and ordering integers, rational numbers, and common irrational numbers such as \( \sqrt{2} \), \( \sqrt{5} \), and \( \pi \)
Sixth grade students will:
  • read, write, and order positive rational numbers, including commonly-used fractions and terminating decimals through thousandths.
Seventh grade students will:
  • read, write, and order integers and positive rational numbers.
  • compare integers and positive rational numbers using the symbols =, <, >.

New Mexico Content Standards and Benchmarks - Grades 5 - 8
Content Standard 1:
Students will understand and use Mathematics in problem solving. Students will:
  • use manipulatives, calculators, computers, and other tools as appropriate in order to strengthen mathematical thinking, understanding, and power to build upon foundational concepts.

Content Standard 2:
Students will understand and use Mathematics in Communication. Students will:
  • represent mathematical ideas through the use of learning tools such as manipulatives, calculators, and computers.

Content Standard 5:
Students will understand and use numbers and number relationships. Students will:
  • expand number sense skills to include integers and rational numbers.

Content Standard 6:
Number and Operation Concepts: Students will understand and use number systems and number theory. Students will:
  • explain why other sets of numbers are needed in addition to whole numbers.