Common Core State Standards:

Mathematics:

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

1. Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g. x-axis and x-coordinates, y-axis and y-coordinate).
2. Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

Grade 6--Statistics and Probability: Summarize and describe distributions.

3. Display numerical data in plots on a number line, including dot plots, histograms, and box plots.

Grade 6—Ratios and Proportional Relationships: Understand ratio concepts and use ratio reasoning to solve problems.

#1. Understand the concept of ratio and use ratio language to describe a radio relationship between two quantities.

#3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g. by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams or equations.

Grade 7—Ratios and Proportional Relationships: Analyze proportional relationships and use them to solve real-world and mathematical problems.

2.d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation.

Language Arts:

Grade 5-- Reading Informational Text

#1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

#7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

#9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeable.

Writing:

Grade 5—Types and Purposes

#1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information. All subheadings, a—d, apply.

Grade 6-8—Types and Purposes

#1 Write arguments to support claims with clear reasoning and relevant evidence. All subheadings, a-e, apply.

New Mexico Science Standards:

Science Strand II: Content of Science
Standard II (Life Science): Understand the properties, structures, and processes of living things and the interdependence of living things and their environments.
5-8 Benchmark I: Explain the diverse structures and functions of living things and the complex relationships between living things and their environments..

Performance Standards
5-4: Describe how human activity impacts the environment
6-1: Understand how organisms interact with their physical environments to meet their needs (i.e. food, water, air) and how the water cycle is essential to most living systems.

Populations and Ecosystems
7-3: Explain how individuals of species that exist together interact with their environment to create an ecosystem (e.g. populations, communities, niches, habitats, food webs).
7-5: Describe how the availability of resources and physical factors limit growth (e.g. quantity of light and water, range of temperature, composition of soil) and how the water, carbon, and nitrogen cycles contribute to the availability of those resources to support living systems.

Next Generation Science Standards:

Middle School: Matter and Energy in Organisms and Ecosystems
MS-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

Science and Engineering Practices: Developing and using models, analyzing and interpreting data and constructing explanations and designing solutions.
Disciplinary Core Ideas: Interdependent relationships in ecosystems—In any ecosystem, organisms and populations with similar requirements for food, water, oxygen, or other resources my compete with each other for limited resources, access to which consequently constrains their growth and reproduction.
Crosscutting Concepts: Patterns, Cause and Effect

MS. Ecosystems: Interactions, Energy, and Dynamics
MS-LS2-3. Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

Science and Engineering Practices: Developing and using models, analyzing and interpreting data and engaging in argument from evidence.

Disciplinary Core Ideas: LS2.A-Interdepentent Relationships in Ecosystems—In any ecosystem, organisms and populations with similar requirements for food, water, oxygen, or other resources may compete with each other for limited resources, access to which consequently constrains their growth and reproduction.

Crosscutting Concepts: Cause and Effect, Stability and Change