

<p>SCIENTIFIC THINKING AND PRACTICE</p> <ol style="list-style-type: none"> 1. Identify and apply steps of the scientific method 2. Describe the essential components of scientific lab investigation 3. Use scientific reasoning and valid logic to recognize cause and effect 4. Apply the appropriate International System of Units (SI) base unit to measure an object 5. Convert from one SI unit to another 	<p>ENERGY TRANSFORMATION AND TRANSFER</p> <ol style="list-style-type: none"> 1. Differentiate between the various types of thermal energy transfer by conduction, convection, and radiation. 2. Predict what happens to an object's energy when it is converted from one form to another 3. Explain how thermal energy consists of vibrations of atoms and how the energy is transferred from one form to another
<p>SCIENCE AND SOCIETY</p> <ol style="list-style-type: none"> 1. Describe New Mexico's role in nuclear science 2. Describe causes of global warming 	<p>INTERACTION OF ENERGY AND MATTER</p> <ol style="list-style-type: none"> 1. Recall the order of waves on the electromagnetic spectrum 2. Distinguish between gamma, X-ray, ultraviolet, visible, infrared, radio, and other waves 3. Describe the characteristics of waves
<p>PROPERTIES OF MATTER</p> <ol style="list-style-type: none"> 1. Classify, model, and describe types of matter 2. Calculate density 3. Interpret pH scale 	<p>FORCE</p> <ol style="list-style-type: none"> 1. Recognize that every object exerts gravitational force on every other object 2. Understand that the gravitational force depends on the masses of the objects and the distance between them 3. Interpret the magnitude and direction of forces using vector diagrams 4. Interpret and apply Newton's Third Law of Motion 5. Explain Newton's Universal Law of Gravitation in terms of the relationship between the distance and mass of two objects 6. Make observations about how the different types of friction affect motion 7. Illustrate the concept of displacement using vector diagrams
<p>STRUCTURE OF MATTER</p> <ol style="list-style-type: none"> 1. Understand and identify atomic structure including subatomic particles, their charges, relative masses, and locations in the atom 2. Make predictions about elements using the periodic table 3. Distinguish between the states of matter, based on the arrangement and movement of atoms 4. Use context clues to calculate the half-life of the radio activity of isotopes 5. Predict chemical reactivity based on the periodic table 6. Make predictions about the polarity of the bonds between two atoms 	<p>MOTION</p> <ol style="list-style-type: none"> 1. Describe how a change in one wave characteristic affects the other characteristics 2. Explain interactions between waves and a medium, including when a wave moves from one medium to another 3. Investigate how the interactions of two waves affect the characteristic of those waves 4. Apply Newton's Laws to describe and analyze the behavior of moving objects