NHSP Review #1Earth Science: Atmospheric Processes and the Water Cycle **Critical Information to focus on while reviewing Earth Science Atmospheric Processes and the Water Cycle**

1. Students know the Sun is the major source of Earth's energy, and provides the energy driving Earth's weather and climate. E/S

2. Students know the composition of Earth's atmosphere has changed in the past and is changing today. I/S

3. Students understand the role of the atmosphere in Earth's greenhouse effect. E/S

4. Students know convection and radiation play important roles in moving heat energy in the Earth system. E/S

5. Students know Earth's rotation affects winds and ocean currents. I/S

NHSP Review #2 Earth Science: Solar System and Universe

Critical Information to focus on while reviewing Earth Science Solar System and Universe

1. Students know common characteristics of stars. I/S

2. Students know stars are powered by nuclear fusion of lighter elements into heavier elements, which results in the release of large amounts of energy. I/S

3. Students know ways in which technology has increased understanding of the universe. I/S

4. Students know the on-going processes involved in star formation and destruction. W/L

5. Students know scientific evidence suggest that the universe is expanding. I/S

NHSP Review #3 Earth Science: Earth's Composition and Structure

Critical Information to focus on while reviewing Earth Science Earth's Composition and Structure

1. Students know how successive rock strata and fossils can be used to confirm the age, history, and changing life forms of the Earth, including how this evidence is affected by the folding, breaking, and uplifting of layers. E/S

2. Students understand the concept of plate tectonics including the evidence that supports it (structural, geophysical and paleontological evidence). E/S

3. Students know elements exist in fixed amounts and move through solid earth, oceans, atmosphere and living things as part of biogeochemical cycles. E/S

4. Students know processes of obtaining, using, and recycling of renewable and non-renewable resources. E/S

5. Students know soil, derived from weathered rocks and decomposed organic material, is found in layers. E/S

NHSP Review #4 Life Science: Heredity

Critical Information to focus on while reviewing Life Science Heredity

1. Students know genetic information passed from parents to offspring is coded in the DNA molecule. E/S
2. Students know DNA molecules provide instructions for assembling protein molecules. E/S
3. Students know all body cells in an organism develop from a single cell and contain essentially identical genetic instructions. E/S
4. Students know several causes and effects of somatic versus sex cell mutations. E/S
5. Students know how to predict patterns of inheritance. E/S

NHSP Review #5 Life Science: Structure of Life

Critical Information to focus on while reviewing Life Science Structure of Life

1. Students know cell structures and their functions. E/S
2. Students know the human body has a specialized anatomy and physiology composed of a hierarchical arrangement of differentiated cells. E/S
3. Students know disease disrupts the equilibrium that exists in a healthy organism. E/S

NHSP Review #6 Life Science: Organisms and Their Environment

Critical Information to focus on while reviewing Life Science Organisms and Their Environment

1. Students know relationships of organisms and their physical environment. E/S
2. Students know how changes in an ecosystem can affect biodiversity and biodiversity's contribution to an ecosystem's stability. E/S
3. Students know the amount of living matter an environment can support is limited by the availability of matter, energy, and theability of the ecosystem to recycle materials. E/S
4. Students know the unique geologic, hydrologic, climatic, and biological characteristics of Nevada's bioregions. E/S

NHSP Review #7 Life Science: Diversity of Life

Critical Information to focus on while reviewing Life Science Diversity of Life

1. Students know organisms can be classified based on evolutionary relationships. E/S
2. Students know similarity of DNA sequences gives evidence of relationships between organisms. E/S
3. Students know the fossil record gives evidence for natural selection and its evolutionary consequences. E/S
4. Students know the extinction of species can be a natural process. E/S
5. Students know biological evolution explains diversity of life. E/S
6. Students know the concepts of natural and artificial selection. E/S

NHSP Review #8 Physical Science: Matter (1 of 2)

Critical Information to focus on while reviewing Physical Science Matter

1. Students know different molecular arrangements and motions account for the different physical properties of solids, liquids, and gases. E/S

2. Students know elements in the periodic table are arranged into groups and periods by repeating patterns and relationships. E/S

3. Students know identifiable properties can be used to separate mixtures. E/S

NHSP Review #9 Physical Science: Matter (2 of 2)

1. Students know atoms bond with one another by transferring or sharing electrons. E/S

2. Students know chemical reactions can take place at different rates, depending on a variety of factors (i.e. temperature, concentration, surface area, and agitation). E/S

3. Students know chemical reactions either release or absorb energy. E/S

4. Students know that, in chemical reactions, elements combine in predictable ratios, and the numbers of atoms of each element do not change. I/S

5. Students know most elements have two or more isotopes, some of which have practical applications. I/S

6. Students know the number of electrons in an atom determines whether the atom is electrically neutral or an ion. I/S

NHSP Review #10 Physical Science: Force and Motion

Critical Information to focus on while reviewing Physical Science Force and Motion

1. Students know laws of motion can be used to determine the effects of forces on the motion of objects. E/S

2. Students know magnetic forces and electric forces can be thought of as different aspects of electromagnetic force. I/S

3. Students know the strength of the electric force between two objects increases with charge and decreases with distance. I/S

4. Students know the strength of the gravitational force between two objects increases with mass and decreases rapidly with distance. I/S

NHSP Review #11 Physical Science: Energy

1. Students know waves (i.e. sound, seismic, electromagnetic) have energy that can be transferred when the waves interact with matter. E/S

2. Students know energy forms can be converted. E/S

3. Students know nuclear reactions convert a relatively small amount of material into a large amount of energy. I/S

4. Students know characteristics, applications and impacts of radioactivity. E/S

5. Students know the relationship between heat and temperature. I/S

6. Students know electricity is transferred from generating sources for consumption and practical uses. I/S

NHSP Review #12 Nature of Science: Scientific Inquiry

Critical Information to focus on while reviewing Nature of Science Scientific Inquiry

1. Students know tables, charts, illustrations and graphs can be used in making arguments and claims in oral and written presentations. E/S

2. Students know scientists maintain a permanent record of procedures, data, analyses, decisions, and understandings of scientific investigations. I/S

3. Students know repeated experimentation allows for statistical analysis and unbiased conclusions. E/S

4. Students know how to safely conduct an original scientific investigation using the appropriate tools and technology. E/S

5. Students know models and modeling can be used to identify and predict cause-effect relationships. I/S

6. Students know organizational schema can be used to represent and describe relationships of sets. E/S

NHSP Review #13 Nature of Science: Science, Technology, and Society

Critical Information to focus on while reviewing Nature of Science: Science, Technology, and Society

1. Students know science, technology, and society influenced one another in both positive and negative ways. E/S

2. Students know consumption patterns, conservation efforts, and cultural or social practices in countries have varying environmental impacts. E/S

3. Students know the influence of ethics on scientific enterprise. E/S

4. Students know scientific knowledge builds on previous information. E/S