

NEBRASKA ALIGNMENT FOR NIH SUPPLEMENT HOW YOUR BRAIN UNDERSTANDS WHAT YOUR EAR HEARS

HOW YOUR BRAIN UNDERSTANDS WHAT YOUR EAR HEARS		
Nebraska Science Standards– Grade 8		
Lesson	Standard	Example Indicator
4	8.1.1.a	Recognize and describe key parts and functions of any system.
4	8.1.1.b	Analyze and predict the interactions within a system and between systems.
3, 4	8.1.2.a	Collect, manipulate, and analyze data from an experiment.
1, 3, 4	8.1.2.b	Observe and develop models (e.g., physical, mathematical, mental, and computer simulations).
3, 4	8.1.2.c	Interpret and explain results of experimentation.
3, 4	8.1.2.d	Analyze whether or not investigative procedures and conclusions are reasonable.
3	8.1.3.a	Select and use appropriate measurement units.
3	8.1.3.c	Apply English and metric systems of measurement.
3, 4, 5	8.2.1.a	Identify questions and identify concepts that guide scientific investigations.
3, 4	8.2.1.b	Design and conduct a scientific investigation.
All lessons	8.2.1.c	Use appropriate tools and techniques to gather, analyze, and interpret data.
1, 3, 4, 5	8.2.1.d	Given evidence, develop descriptions, explanations, predictions, and models.
1, 3, 4, 5	8.2.1.e	Show the relationship between evidence and explanations.
1, 3, 4, 5	8.2.1.f	Recognize and analyze alternative explanations and predictions.
1, 3, 4, 5	8.2.1.g	Communicate scientific procedures and explanations.
3, 5	8.2.1.h	Use mathematics in scientific inquiry.
1, 3, 4	8.3.3.d	Investigate and describe the properties and transfer of sound energy.
4	8.4.1.a	Investigate and describe the levels of organizations: cells, tissues, organs, organ systems, whole organisms, and ecosystems.
4	8.4.1.c	Investigate and explain how cells sustain life through functions (e.g., growth and nutrition).
4	8.4.1.d	Investigate and describe the specialized function performed by specialized cells (e.g., muscular and skeletal) in multicellular organisms.
4	8.4.1.e	Investigate and describe the human body systems and how they interact.
3, 4, 5	8.4.1.f	Investigate and explain how disease affects the structure and/or function of an organism.

NEBRASKA ALIGNMENT FOR NIH SUPPLEMENT HOW YOUR BRAIN UNDERSTANDS WHAT YOUR EAR HEARS

1	8.4.2.d	Investigate and describe the effects of inherited traits and environmental influences on an organism’s characteristics.
1, 3, 4, 5	8.4.3.b	Investigate and explain how behavior is a response to internal and external stimuli determined by heredity and experience.
3, 4	8.2.a	Distinguish between scientific inquiry (asking questions about the natural world) and technological design (using science to solve practical problems).
4	8.6.2.b	Describe how science and technology are reciprocal.
4	8.6.2.d	Recognize that solutions have intended and unintended consequences.
4, 5	8.7.1.b	Investigate and explain how personal choices can directly affect a person’s health (e.g., exercise, nutrition, and use of drugs).
5	8.7.4.a	Analyze a type of hazard (e.g., natural, chemical, or biological) to evaluate the options for reducing or eliminating human risk.
4, 5	8.7.4.b	Describe how perceptions of risks and benefits influence personal and social decisions (e.g., seat belt usage and waste disposal procedures).
4	8.7.5.a	Explain that the effect of science on society is neither entirely beneficial nor entirely detrimental.
3, 4	8.8.1.b	Investigate and understand that science requires different abilities based on the type of inquiry and relies upon basic human qualities and scientific habits of mind.
3, 4	8.8.2.a	Formulate and test a hypothesis using observations, experiments, and models.
3, 4, 5	8.8.2.b	Use questioning, response to criticism, and open communication when defending a conclusion.
1, 3, 4, 5	8.8.2.c	Evaluate the results of scientific investigations, experiments, observations, theoretical models, and the explanations proposed by other scientists.
1, 3, 4, 5	8.8.2.d	Understand that scientific theories are based on observations, governed by rules of reasoning, and used to predict events.

Nebraska Mathematics Standards – Grades 5 – 8

Lesson	Standard	Description
3	8.2.1	Add, subtract, multiply, and divide decimals and proper, improper, and mixed fractions with common and uncommon denominators with and without the use of technology.
3, 5	8.2.2	Identify the appropriate operation and do the correct calculations when solving word problems.

NEBRASKA ALIGNMENT FOR NIH SUPPLEMENT HOW YOUR BRAIN UNDERSTANDS WHAT YOUR EAR HEARS

3, 5	8.2.3	Solve problems involving whole numbers, integers, and rational numbers (fractions, decimals, ratios, proportions, and percents) with and without the use of technology.
3	8.3.1	Select measurement tools and measure quantities for temperature, time, money, distance, angles, area, perimeter, volume, capacity, and weight/mass in standard and metric units at the designated level of precision.
3, 5	8.5.1.a	Select appropriate representations of data when construction data displays (graphs, tables, or charts).
2, 3, 5	8.5.2	Read and interpret tables, charts, and graphs to make comparisons and predictions.

Nebraska Reading / Writing Standards – Grade 8

Lesson	Standard	Example Indicator
1, 3, 4, 5	8.1.1.a	Monitor understanding during reading.
1, 2, 3, 4, 5	8.1.1.b	Interpret information from diagrams, charts, and graphs.
1, 2, 3, 4, 5	8.1.1.c	Answer literal, inferential/interpretive, and critical questions.
1, 3, 4	8.1.2.b	Use electronic resources (CD-ROM, software, online resources).
1, 3, 4, 5	8.1.5.c	Generate how, why, and what-if questions in interpreting nonfiction text.
1, 3, 4, 5	8.1.5.d	Follow written directions in technical reading.
2, 3, 4, 5	8.2.1	Write using standard English (conventions) for sentence structure, usage, punctuation, capitalization, and spelling.
2, 3, 4, 5	8.2.4.a	Develop narrative, persuasive, descriptive, technical, and/or expository writing for a designated audience and purpose.
2, 3, 4, 5	8.2.4.b	Write to describe, explain, and inform.
All lessons	8.3.1.a	Contribute knowledge and ask questions relevant to the topic discussed.
All lessons	8.3.1.b	Use subject-related vocabulary in discussions.
All lessons	8.3.1.d	Use discussion skills to assume leadership and participant roles.
All lessons	8.4.1.a	Listen to take notes and process information.
2, 3, 4, 5	8.4.1.b	Follow multi-step oral directions.
All lessons	8.4.1.c	Use listening skills in practical settings.

NEBRASKA ALIGNMENT FOR NIH SUPPLEMENT HOW YOUR BRAIN UNDERSTANDS WHAT YOUR EAR HEARS

National Health Education Standards – Grades 6 – 8: cited from pre-publication document of National Health Education Standards, Pre K-12, American Cancer Society, December 2005 – August 2006

Lesson	Standard	Performance Indicator
4, 5	1.8.1	Analyze the relationship between healthy behaviors and personal health.
3, 4, 5	1.8.3	Analyze how the environment impacts personal health.
3, 4, 5	1.8.5	Describe ways to reduce or prevent injuries and other adolescent health problems.
4, 5	1.8.7	Describe the benefits and barriers to practicing healthy behaviors.
4, 5	1.8.8	Examine the likelihood of injury or illness if engaging in unhealthy behaviors.
4, 5	1.8.9	Examine the potential seriousness of injury or illness if engaging in unhealthy behaviors.
4	2.8.3	Describe how peers influence healthy and unhealthy behaviors.
4	2.8.5	Analyze how messages from the media influence personal and family health.
4, 5	2.8.8	Explain the influence of personal values and beliefs on individual health practices and behaviors.
4, 5	2.8.9	Describe how some health risk behaviors can influence the likelihood of engaging in unhealthy behaviors.
5	2.8.10	Explain how school and public health policies can influence health promotion and disease prevention.
3	3.8.1	Analyze the validity of health information, products, and services.
4	3.8.4	Describe situations that may require professional health services.
4, 5	4.8.1	Apply effective verbal and nonverbal communication skills to enhance health.
4, 5	5.8.1	Identify circumstances that can help or hinder healthy decision-making.
4, 5	5.8.2	Determine when health-related situations require the application of a thoughtful decision-making process.
4, 5	5.8.3	Distinguish when individual or collaborative decision-making is appropriate.
4, 5	5.8.5	Predict the potential short and long-term impact of each alternative on self and others.
4, 5	5.8.6	Choose healthy alternatives over unhealthy alternatives when making a decision.
4, 5	5.8.7	Analyze the outcomes of a health-related decision.
4	6.8.1	Assess personal health practices.
4	6.8.2	Develop a goal to adopt, maintain, or improve a personal health practice.
4	6.8.3	Apply strategies and skills needed to attain a personal health goal.

NEBRASKA ALIGNMENT FOR NIH SUPPLEMENT HOW YOUR BRAIN UNDERSTANDS WHAT YOUR EAR HEARS

4, 5	6.8.4	Describe how personal health goals can vary with changing abilities, priorities, and responsibilities.
4	7.8.1	Explain the importance of assuming responsibility for personal health behaviors.
4	7.8.2	Demonstrate healthy practices and behaviors that will maintain or improve the health of self and others.
4, 5	7.8.3	Demonstrate behaviors to avoid or reduce health risks to self and others.
3, 4, 5	8.8.1	State a health enhancing position on a topic and support it with accurate information.
4, 5	8.8.2	Demonstrate how to influence and support others to make positive health choices.
2, 4, 5	8.8.4	Identify ways that health messages and communication techniques can be altered for different audiences.