

UNDERSTANDING ALCOHOL: INVESTIGATIONS INTO BIOLOGY AND BEHAVIOR		
Indiana Science Academic Standards: Grades 6 – 8		
Grade 6		
Lesson	Standard	Description
1, 3	6.1.2	Give examples of different ways scientists investigate natural phenomena and identify processes all scientists use, such as collection of relevant evidence, the use of logical reasoning, and the application of imagination in devising hypotheses and explanations, in order to make sense of the evidence.
3	6.1.3	Recognize and explain that hypotheses are valuable, even if they turn out not to be true, if they lead to fruitful investigations.
3	6.1.6	Explain that computers have become invaluable in science because they speed up and extend people’s ability to collect, store, compile, and analyze data; prepare research reports; and share data and ideas with investigators all over the world.
1, 3	6.1.7	Explain that technology is essential to science for such purposes as access to outer space and other remote locations, sample collection and treatment, measurement, data collection and storage, computation, and communication of information.
5	6.2.2	Use technology, such as calculators or computer spreadsheets, in analysis of data.
2, 3, 4, 5, 6	6.2.5	Organize information in simple tables and graphs and identify relationships they reveal. Use tables and graphs as examples of evidence for explanations when writing essays or writing about lab work, fieldwork, etc.
2, 3, 4, 5, 6	6.2.6	Read simple tables and graphs produced by others and describe in words what they show.
3, 5	6.2.7	Locate information in reference books, back issues of newspapers and magazines, CD-ROMs, and computer databases.
1, 3, 4, 5	6.2.8	Analyze and interpret a given set of findings, demonstrating that there may be more than one good way to do so.
2	6.4.11	Describe that human beings have body systems for obtaining and providing energy, defense, reproduction, and the coordination of body functions.
2	6.7.1	Describe that a system, such as the human body, is composed of subsystems.
1, 2, 3, 4	6.7.2	Use models to illustrate processes that happen too slowly, too quickly, or on too small a scale to observe directly, or are too vast to be changed deliberately, or are potentially dangerous.
5	6.7.3	Identify examples of feedback mechanisms within systems that serve to keep changes within specified limits.
Grade 7		
Lesson	Standard	Description
3	7.1.1	Recognize and explain that when similar investigations give different results, the scientific challenge is to judge whether the differences are trivial or significant, which often takes further studies to decide.

INDIANA ALIGNMENT FOR NIH SUPPLEMENT UNDERSTANDING ALCOHOL: INVESTIGATIONS INTO BIOLOGY AND BEHAVIOR

3, 5	7.1.4	Describe that different explanations can be given for the same evidence, and it is not always possible to tell which one is correct without further inquiry.
3, 4, 5, 6	7.2.7	Incorporate circle charts, bar and line graphs, diagrams, scatterplots, and symbols into writing, such as lab or research reports, to serve as evidence for claims and/or conclusions.
3, 4	7.5.4	Describe that the larger the sample, the more accurately it represents the whole. Understand, however, that any sample can be poorly chosen and this will make it unrepresentative of the whole.
2, 3, 4	7.7.2	Use different models to represent the same thing, noting that the kind of model and its complexity should depend on its purpose.
3, 5	7.7.3	Describe how physical and biological systems tend to change until they reach equilibrium and remain that way unless their surroundings change.
Grade 8		
Lesson	Standard	Description
3, 4, 5, 6	8.1.1	Recognize that and describe how scientific knowledge is subject to modification as new information challenges prevailing theories and as a new theory leads to looking at old observations in a new way.
3, 5	8.1.3	Recognize and describe that if more than one variable changes at the same time in an experiment, the outcome of the experiment may not be attributable to any one of the variables.
3	8.1.5	Explain why research involving human subjects requires that potential subjects be fully informed about the risks and benefits associated with the research and that they have the right to refuse to participate.
3, 6	8.1.8	Explain that humans help shape the future by generating knowledge, developing new technologies, and communicating ideas to others.
2, 5	8.2.2	Determine in what units, such as seconds, meters, grams, etc., an answer should be expressed based on the units of the inputs to the calculation.
2	8.2.3	Use proportional reasoning to solve problems.
5	8.2.4	Use technological devices, such as calculators and computers, to perform calculations.
All lessons	8.2.7	Participate in group discussions on scientific topics by restating or summarizing accurately what others have said, asking for clarification or elaboration, and expressing alternative positions.
2, 3, 5, 6	8.2.8	Use tables, charts, and graphs in making arguments and claims in, for example, oral and written presentations about lab or fieldwork.
3, 4, 5	8.2.9	Explain why arguments are invalid if based on very small samples of data, biased samples, or samples for which there was no control sample.
3, 4, 5	8.5.4	Illustrate how graphs can show a variety of possible relationships between two variables.
2, 5	8.7.1	Explain that a system usually has some properties that are different from those of its parts but appear because of the interaction of those parts.
3, 5	8.7.3	Use technology to assist in graphing and with simulations that compute and display results of changing factors in models.

3, 5	8.7.5	Observe and describe that a system may stay the same because nothing is happening or because things are happening that counteract one another.
Indiana Mathematics Academic Standards: Grades 6 – 8		
Grade 6		
Lesson	Standard	Description
2	6.1.5	Recognize decimal equivalents for commonly used fractions without the use of a calculator.
3, 4, 5	6.2.1	Add and subtract positive and negative integers.
2	6.2.2	Multiply and divide positive and negative integers.
2	6.2.3	Multiply and divide decimals.
2	6.2.7	Understand proportions and use them to solve problems.
2, 5	6.2.10	Use mental arithmetic to add or subtract simple fractions and decimals.
3, 5	6.3.9	Investigate how a change in one variable relates to a change in a second variable.
3, 4, 5, 6	6.6.1	Organize and display single-variable data in appropriate graphs and stem-and-leaf plots, and explain which types of graphs are appropriate for various data sets.
2, 3, 4, 5	6.7.5	Express solutions clearly and logically by using the appropriate mathematical terms and notation. Support solutions with evidence in both verbal and symbolic work.
2, 3, 5	6.7.9	Make precise calculations and check the validity of the results in the context of the problem.
Grade 7		
Lesson	Standard	Description
2, 3, 4, 5	7.2.1	Solve addition, subtraction, multiplication, and division problems that use integers, fractions, decimals, and combinations of the four operations.
2, 3, 5	7.2.5	Use mental arithmetic to compute with simple fractions, decimals, and powers.
2	7.5.1	Compare lengths, areas, volumes, weights, capacities, times, and temperatures within measurement systems.
3, 4, 5, 6	7.6.1	Analyze, interpret, and display data in appropriate bar, line, and circle graphs and stem-and-leaf plots and justify the choice of display.
3, 4, 5, 6	7.6.4	Analyze data displays, including ways that they can be misleading. Analyze ways in which the wording of questions can influence survey results.
2, 3, 4, 5	7.7.6	Express solutions clearly and logically by using the appropriate mathematical terms and notation. Support solutions with evidence in both verbal and symbolic work.
2, 3, 5	7.7.10	Make precise calculations and check the validity of the results in the context of the problem.
Grade 8		
Lesson	Standard	Description

INDIANA ALIGNMENT FOR NIH SUPPLEMENT UNDERSTANDING ALCOHOL: INVESTIGATIONS INTO BIOLOGY AND BEHAVIOR

2, 3, 4, 5	8.2.1	Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) in multi-step problems.
2, 3, 4, 5	8.2.4	Use mental arithmetic to compute with common fractions, decimals, powers, and percents.
2	8.5.1	Convert common measurements for length, area, volume, weight, capacity, and time to equivalent measurements within the same system.
3, 4, 5, 6	8.6.1	Identify claims based on statistical data and, in simple cases, evaluate the reasonableness of the claims. Design a study to investigate the claim.
3, 4, 6	8.6.2	Identify different methods of selecting samples, analyzing the strengths and weaknesses of each method, and the possible bias in a sample or display.
3, 4, 5, 6	8.6.4	Analyze, interpret, and display single- and two-variable data in appropriate bar, line, and circle graphs; stem-and-leaf plots; and box-and-whisker plots and explain which types of display are appropriate for various data sets.
2, 3, 4, 5	8.7.6	Express solutions clearly and logically using the appropriate mathematical terms and notation. Support solutions with evidence in both verbal and symbolic work.
2, 3, 5	8.7.10	Make precise calculations and check the validity of the results in the context of the problem.

Indiana English Language Arts Academic Standards: Grades 6 - 8

Grade 6

Lesson	Standard	Description
All lessons	6.1.4	Understand unknown words in informational texts by using word, sentence, and paragraph clues to determine meaning.
3, 5	6.2.4	Clarify an understanding of texts by creating outlines, notes, diagrams, summaries, or reports.
2, 3, 4, 5, 6	6.2.7	Make reasonable statements and conclusions about a text, supporting them with evidence from the text.
2, 3, 5, 6	6.4.2	Choose the form of writing that best suits the intended purpose.
3	6.4.3	Write informational pieces of several paragraphs that: engage the interest of the reader, state a clear purpose, develop the topic with supporting details and precise language, and conclude with a detailed summary linked to the purpose of the composition.
3, 5	6.5.2	Write descriptions, explanations, comparison and contrast papers, and problem and solution essays that: state the thesis (position on the topic) or purpose, explain the situation, organize the composition clearly, and offer evidence to support arguments and conclusions.
5, 6	6.5.5	Write persuasive compositions that: state a clear position on a proposition or proposal, support the position with organized and relevant evidence and effective emotional appeals, and anticipate and address reader concerns and counterarguments.
3, 5, 6	6.5.7	Write for different purposes (information, persuasion, description) and to a specific audience or person, adjusting tone and style as necessary.
2, 3, 5, 6	6.6.5	Spell correctly frequently misspelled words (<i>their/they're/there, loose/lose/loss, choose/chose, through/threw</i>).

INDIANA ALIGNMENT FOR NIH SUPPLEMENT UNDERSTANDING ALCOHOL: INVESTIGATIONS INTO BIOLOGY AND BEHAVIOR

3, 5	6.7.3	Restate and carry out multiple-step oral instructions and directions.
3, 5, 6	6.7.6	Support opinions with researched, documented evidence and with visual or media displays that use appropriate technology.
6	6.7.13	Deliver persuasive presentations that: provide a clear statement of the position, include relevant evidence, offer a logical sequence of information, and engage the listener and try to gain acceptance of the proposition or proposal.
All lessons	6.7.15	Ask questions that seek information not already discussed.
Grade 7		
Lesson	Standard	Description
3, 4, 5, 6	7.2.2	Locate information by using a variety of consumer and public documents.
2, 3, 4, 5, 6	7.2.7	Draw conclusions and make reasonable statements about a text, supporting the conclusions and statements with evidence from the text.
3, 4, 5	7.4.5	Identify topics; ask and evaluate questions; and develop ideas leading to inquiry, investigation, and research.
5, 6	7.5.4	Write persuasive compositions that: state a clear position or perspective in support of a proposition or proposal, describe the points in support of the proposition, employing well-articulated evidence and effective emotional appeals, and anticipate and address reader concerns and counterarguments.
2, 3, 5, 6	7.5.7	Write for different purposes and to a specific audience or person, adjusting style and tone as necessary.
All lessons	7.7.1	Ask questions to elicit information, including evidence to support the speaker's claims and conclusions.
2, 3, 5, 6	7.7.4	Arrange supporting details, reasons, descriptions, and examples effectively.
6	7.7.11	Deliver persuasive presentations that: state a clear position in support of an argument or proposal and describe the points in support of the proposal and include supporting evidence.
Grade 8		
Lesson	Standard	Description
All lessons	8.1.3	Verify the meaning of a word in its context, even when its meaning is not directly stated, through the use of definition, restatement, example, comparison, or contrast.
2, 3, 4, 5, 6	8.2.9	Make reasonable statements and draw conclusions about a text, supporting them with accurate examples.
3, 5, 6	8.4.2	Create compositions that have a clear message, a coherent thesis (a statement of position on the topic), and end with a clear and well-supported conclusion.
3, 4, 5, 6	8.4.11	Identify topics; ask and evaluate questions; and develop ideas leading to inquiry, investigation, and research.
5, 6	8.5.4	Write persuasive compositions that: include a well-defined thesis that makes a clear and knowledgeable appeal, present detailed evidence, examples, and reasoning to support effective arguments and emotional appeals, and provide details, reasons, and examples, arranging them effectively by anticipating and answering reader concerns and counterarguments.
2, 3, 5, 6	8.5.7	Write for different purposes and to a specific audience or person, adjusting tone and style as necessary.

INDIANA ALIGNMENT FOR NIH SUPPLEMENT UNDERSTANDING ALCOHOL: INVESTIGATIONS INTO BIOLOGY AND BEHAVIOR

2, 3, 5, 6	8.6.1	Use correct and varied sentence types (simple, compound, complex, and compound-complex) and sentence openings to present a lively and effective personal style.
2, 3, 5, 6	8.6.5	Use correct punctuation.
2, 3, 5, 6	8.6.6	Use correct capitalization.
2, 3, 5, 6	8.6.7	Use correct spelling conventions.
6	8.7.13	Deliver persuasive presentations that: include a well-defined thesis (position on the topic), differentiate fact from opinion and support arguments with detailed evidence, examples, reasoning, and persuasive language, anticipate and effectively answer listener concerns and counterarguments through the inclusion and arrangement of details, reasons, examples, and other elements, and maintain a reasonable tone.
Indiana Health Education Academic Standards: Grades 6 – 8		
Lesson	Standard	Description
4, 5, 6	6.1.1 7.1.1 8.1.1	Explain the importance of assuming responsibility for personal health behaviors.
4, 5, 6	6.1.2 7.1.2 8.1.2	Explain the relationships between personal health behaviors and the prevention of injury, illness, disease, and premature death.
4, 5, 6	6.1.4 7.1.4 8.1.4	Explain how personal health behaviors influence the functioning of body systems. (6) Explain the interrelationships between behaviors, the functioning of body systems, and overall health. (7 & 8)
4, 5	6.1.5 7.1.5 8.1.5	Describe how one's surroundings influence mental, emotional, social, and physical health. (6) Analyze interrelationships between the mental, emotional, social, and physical environment and personal health. (7 & 8)
4, 5, 6	6.1.6 7.1.6 8.1.6	Describe ways to reduce risks related to common health problems among adolescents.
4	6.1.7 7.1.7 8.1.7	Discuss health problems that should be detected and treated early. (6) Explain how appropriate health care can prevent, detect, and treat health problems. (7 & 8)
4	6.1.8 7.1.8 8.1.8	Describe how pathogens are related to the cause or prevention of disease. (6) Describe how pathogens, family history, and other risk factors are related to the cause or prevention of disease and other health problems. (7 & 8)
2, 3, 4, 5, 6	6.1.9 7.1.9 8.1.9	Explain key health terms and concepts.

INDIANA ALIGNMENT FOR NIH SUPPLEMENT UNDERSTANDING ALCOHOL: INVESTIGATIONS INTO BIOLOGY AND BEHAVIOR

2, 3, 4, 5, 6	6.2.2 7.2.2 8.2.2	Demonstrate the ability to utilize resources from home, school, and community that provide valid health information.
1, 6	6.2.3 7.2.3 8.2.3	Analyze how media influences the selection of health information, products, and services.
4	7.2.6	Describe situations requiring professional health services.
4	6.3.5 7.3.5 8.3.5	Demonstrate the ability to analyze a personal health assessment to determine health strengths and risks.
1, 4, 5, 6	6.4.1 7.4.1 8.4.1	Describe how the family, school, and peers influence the health and health behaviors of adolescents.
1, 4, 6	6.4.3 7.4.3 8.4.3	Analyze how messages from media and other sources influence health behaviors.
All lessons	6.5.4 7.5.4 8.5.4	Demonstrate ways to communicate care, consideration, and respect of self and others.
All lessons	6.5.5 7.5.5 8.5.5	Demonstrate attentive listening and other communication skills to build and maintain healthy relationships.
5, 6	6.6.1 7.6.1 8.6.1	Demonstrate the ability to apply a decision-making process to health issues and problems individually and collaboratively.
4, 5, 6	6.6.2 7.6.2 8.6.2	Predict how decisions regarding health behaviors have consequences for self and others.
4, 5, 6	6.7.1 7.7.1 8.7.1	Analyze various communication methods to accurately express health information and ideas.
2, 3, 4, 5, 6	6.7.2 7.7.2 8.7.2	Demonstrate the ability to express information and ideas about health issues.
5, 6	6.7.3 7.7.3 8.7.4	Demonstrate the ability to influence and support others in making positive health choices.

INDIANA ALIGNMENT FOR NIH SUPPLEMENT UNDERSTANDING ALCOHOL: INVESTIGATIONS INTO BIOLOGY AND BEHAVIOR

5, 6	6.7.4 7.7.4 8.7.5	Demonstrate the ability to work cooperatively when advocating for healthy individuals, families, and schools.
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