

ARIZONA ALIGNMENT FOR NIH SUPPLEMENT SLEEP, SLEEP DISORDERS, AND BIOLOGICAL RHYTHMS

| SLEEP, SLEEP DISORDERS, AND BIOLOGICAL RHYTHMS | | |
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| Arizona Science Academic Standards: High School | | |
| Lesson | Standard | Performance Objective |
| All lessons | SCHS-S1C1-01 | Evaluate scientific information for relevance to a given problem. |
| 1, 2, 3 | SCHS-S1C1-02 | Develop questions from observations that transition into testable hypotheses. |
| 1, 2, 3 | SCHS-S1C1-03 | Formulate a testable hypothesis. |
| 1, 2, 3 | SCHS-S1C1-04 | Predict the outcome of an investigation based on prior evidence, probability, and/or modeling (not guessing or inferring). |
| 1, 2, 3 | SCHS-S1C2-01 | Demonstrate safe and ethical procedures (e.g., use and care of technology, materials, organisms) and behavior in all science inquiry. |
| 1, 2, 3 | SCHS-S1C2-02 | Identify the resources needed to conduct an investigation. |
| 1, 3 | SCHS-S1C2-03 | Design an appropriate protocol (written plan of action) for testing a hypothesis: <ul style="list-style-type: none"> • Identify dependent and independent variables in a controlled investigation. • Determine an appropriate method for data collection (e.g., using balances, thermometers, microscopes, spectrophotometer, using qualitative changes). • Determine an appropriate method for recording data (e.g., notes, sketches, photographs, videos, journals (logs), charts, computers/calculators). |
| 1, 3 | SCHS-S1C2-04 | Conduct a scientific investigation that is based on a research design. |
| Pre-lesson, 1, 2, 3, 4 | SCHS-S1C2-05 | Record observations, notes, sketches, questions, and ideas using tools such as journals, charts, graphs, and computers. |
| 1, 2, 3, 4 | SCHS-S1C3-01 | Interpret data that show a variety of possible relationships between variables, including: positive relationship, negative relationship, or no relationship. |
| 1, 2, 3, 4 | SCHS-S1C3-02 | Evaluate whether investigational data support or do not support the proposed hypothesis. |
| 1, 2, 3, 4 | SCHS-S1C3-03 | Critique reports of scientific studies (e.g., published papers, student reports). |
| 1, 3 | SCHS-S1C3-04 | Evaluate the design of an investigation to identify possible sources of procedural error, including: sample size, trials, controls, and analyses. |
| 1, 2, 3, 4 | SCHS-S1C4-01 | For a specific investigation, choose an appropriate method for communicating the results. |
| 1, 3 | SCHS-S1C4-02 | Produce graphs that communicate data. |
| 1, 2, 3, 4 | SCHS-S1C4-03 | Communicate results clearly and logically. |
| 1, 2, 3, 4 | SCHS-S1C4-04 | Support conclusions with logical scientific arguments. |
| 5 | SCHS-S2C1-01 | Describe how human curiosity and needs have influenced science, impacting the quality of life worldwide. |
| 5 | SCHS-S2C1-03 | Analyze how specific changes in science have affected society. |

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| 3, 5 | SCHS-S2C2-02 | Explain the process by which accepted ideas are challenged or extended by scientific innovation. |
| 4, 5 | SCHS-S3C2-03 | Support a position on a science or technology issue. |

Arizona Mathematics Academic Standards: High School

| Lesson | Standard | Performance Objective |
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| Pre-lesson, 1, 3 | MHS-S1C2-05 | Use grade level-appropriate mathematical terminology. |
| 1, 3 | MHS-S2C1-01 | Formulate questions to collect data in contextual situations. |
| Pre-lesson, 1, 3 | MHS-S2C1-02 | Organize collected data into an appropriate graphical representation. |
| Pre-lesson, 1, 3 | MHS-S2C1-03 | Display data as lists, tables, matrices, and plots. |
| 1 | MHS-S2C1-04 | Construct equivalent displays of the same data. |
| 1, 3 | MHS-S2C1-07 | Make reasonable predictions based upon linear patterns in data sets or scatter plots. |
| 1, 3 | MHS-S2C1-08 | Make reasonable predictions for a set of data, based on patterns. |
| 1, 2, 3 | MHS-S2C1-09 | Draw inferences from charts, tables, graphs, plots, or data sets. |
| 1, 2, 3 | MHS-S2C1-11 | Evaluate the reasonableness of conclusions drawn from data analysis. |
| 1, 3 | MHS-S2C2-06 | Distinguish between independent and dependent events. |
| 1, 2, 3 | MHS-S3C2-03 | Identify a graph that models a given real-world situation. |
| 1, 3 | MHS-S3C2-07 | Express the relationship between two variables using tables/matrices, equations, or graphs. |
| 1, 3 | MHS-S3C2-09 | Interpret the relationship between data suggested by tables/matrices, equations, or graphs. |
| 1, 3 | MHS-S5C2-04 | Analyze assertions related to a contextual situation by using principles of logic. |

Arizona Language Arts Academic Standards: Grades 9 & 10

Reading

| Lesson | Standard | Performance Objective |
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| 2, 3, 4, 5 | R09-S1C4-02 R10-S1C4-02 | Infer word meanings from context (e.g., definition, example, restatement, comparison/contrast, cause/effect). |
| 2, 3, 4, 5 | R09-S1C6-02 R10-S1C6-02 | Generate clarifying questions in order to comprehend text. |
| All lessons | R09-S1C6-04 R10-S1C6-04 | Connect information and events in text to experience and to related text and sources. |
| 2, 3, 4, 5 | R09-S3C1-02 R10-S3C1-02 | Distinguish: facts from opinions (9) / supported inferences from unsupported inferences (10) in expository selections such as editorials, newspaper articles, essays, reviews, and critiques, providing supporting evidence from the text. |

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| 1, 2, 3, 4 | R09-S3C1-04 R10-S3C1-04 | Organize information from both primary and secondary sources by taking notes, outlining ideas, paraphrasing information; and by making charts, conceptual maps, learning logs, and/or timelines. |
| 1, 2, 3 | R09-S3C1-05 R10-S3C1-05 | Interpret graphic sources of information (e.g., charts, maps, diagrams, illustrations, tables, timelines, graphs) to support ideas. |
| 2, 3, 4, 5 | R10-S3C1-07 | Make relevant inferences by synthesizing concepts and ideas from a single reading selection. |
| 2, 3, 4, 5 | R09-S3C1-08 R10-S3C1-08 | Support conclusions drawn from ideas (9) and concepts (10) in expository text. |
| All lessons | R09-S3C2-01 R10-S3C2-01 | Synthesize information from multiple sources (e.g., texts, maps, illustrations, workplace documents, schematic diagrams) to solve a problem. |
| All lessons | R09-S3C2-02 R10-S3C2-02 | Synthesize information from multiple sources (e.g., texts, maps, illustrations, workplace documents, schematic diagrams) to draw conclusions. |
| All lessons | R09-S3C2-03 | Identify the objective(s) of functional text (e.g., warranties, product information, technical manuals, consumer publications, workplace documents). |

Writing

| Lesson | Standard | Performance Objective |
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| 1, 2, 3, 4 | W09-S1C1-02 W10-S1C1-02 | Determine the purpose (e.g., to entertain, to inform, to communicate, to persuade, to explain) of an intended writing piece. |
| 1, 2, 3, 4 | W09-S1C1-03 W10-S1C1-03 | Determine the intended audience of a writing piece. |
| 1, 2, 3, 4 | W09-S1C5-01 W10-S1C5-01 | Prepare writing that follows a format appropriate for the purpose (e.g., for display, sharing with others, submitting to a publication). |
| 1, 2, 3, 4 | W09-S1C5-03 W10-S1C5-03 | Write legibly. |
| 1, 2, 3, 4 | W09-S2C1-01 W10-S2C1-01 | Maintain a clear, narrow focus to support the topic. |
| 1, 2, 3, 4 | W09-S2C1-02 W10-S2C1-02 | Write with an identifiable purpose and for a specific audience. |
| 1, 2, 3, 4 | W09-S2C1-03 W10-S2C1-03 | Provide sufficient, relevant, and carefully selected details for support. |
| 1, 2, 3, 4 | W09-S2C1-04 W10-S2C1-04 | Demonstrate a thorough, balanced explanation of the topic. |
| 1, 2, 3, 4 | W09-S2C1-05 W10-S2C1-05 | Include ideas and details that show original perspective and insights. |
| 1, 2, 3, 4 | W09-S2C2-01 W10-S2C2-01 | Use a structure that fits the type of writing (e.g., letter format, narrative, play, essay). |

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| 1, 2, 3, 4 | W09-S2C3-01 W10-S2C3-01 | Show awareness of the audience through word choice, style, and an appropriate connection with, or distance from, the audience. |
| 1, 2, 3, 4 | W09-S2C3-03 W10-S2C3-03 | Choose appropriate voice (e.g., formal, informal, academic discourse) for the application. |
| 1, 2, 3, 4 | W09-S2C3-05 W10-S2C3-05 | Use language appropriate to purpose, topic, and audience. |
| 1, 2, 3, 4 | W09-S2C6-09 W10-S2C6-09 | Spell words correctly. |
| 1, 2, 3, 4 | W09-S2C6-011 W10-S2C6-011 | Demonstrate control of grammar and usage in writing. |
| 1, 2, 3, 4 | W09-S3C2-01 W10-S3C2-01 | Write an explanatory, multi-paragraph essay. |

Arizona Comprehensive Health Education Academic Standards - High School

| Lesson | Standard | Performance Objective |
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| All lessons | 1CH-P3-01 | Identify personal health behaviors that promote and/or detract from the functioning of body systems. |
| 1, 3, 4, 5 | 1CH-P3-02 | Predict the impact of personal health behaviors that promote and or detract from the functioning of body systems (to include sleep, nutrition, exercise, sexual and substance abuse). |
| 5 | 1CH-P3-04 | Determine strategies to reduce health risk for more healthy behavior. |
| 5 | 1CH-P4-01 | Describe how problem solving skills relate to the influence that family, peers and the community have on a person's health. |
| 4 | 1CH-P10-01 | Define and provide examples of acute, chronic, communicable, noncommunicable, degenerative, metabolic, hereditary and congenital diseases. |
| 4 | 1CH-P10-02 | Describe how race, culture and hereditary factors impact disease susceptibility: a) List environmental influences that affect disease susceptibility; b) Describe the impact of fitness, diet, rest and other lifestyle issues related to disease. |
| 4 | 1CH-P10-03 | Evaluate disease prevention and control practices (e.g., immunization, pollution control and smoking cessation): a) Identify methods of early recognition of health problems; b) Identify their responsibility as active participants in treatment and rehabilitation. |
| 5 | 1CH-D7-01 | Describe agreements related to the relationship between publications, safety-related legislation and government regulations concerning their influence on health promotion and disease prevention. |
| 4 | 2CH-P1-01 | Compile documents that are sources of health given in the home, at the school and from community health agencies. |
| 4 | 2CH-P3-01 | Select a health situation requiring professional health services. |

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| 5 | 2CH-P6-01 | Describe local, state, federal and international agency involvement in providing health services and protecting and informing consumers (use a specific service or health issue). |
| 3, 5 | 3CH-P3-02 | Identify the short-term and long-term consequences of responsible and risky/harmful behaviors. |
| 5 | 3CH-P4-01 | Describe responsible and safe behavior (personal, family and community) such as driving, sports, recreation, and interpersonal relationships. |
| All lessons | 5CH-P1-01 | Demonstrate the ability to: send clear and direct messages, verbally and nonverbally, listen to others, receiving and understanding their communication, ask for clarification when needed, and respond verbally and nonverbally. |
| 1, 3, 4 | 6CH-P3-01 | Demonstrate the impact (immediate and long-term) of health decisions on the individual (e.g., use of tobacco, alcohol and other drugs, sexual behavior, nutrition, exercise, sleep). |
| Pre-lesson | 6CH-P4-01 | Construct a health and wellness personal activities log for at least one week. |
| 4, 5 | 7CH-P2-01 | Present information about health issues (e.g., nutrition, eating disorders, exercise, athletic needs, the environment, disease control, human sexuality, substance abuse, mental health, stress management). |