

| THE SCIENCE OF ENERGY BALANCE: CALORIE INTAKE AND PHYSICAL ACTIVITY | | |
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| Alabama Science Standards – Life Science: Grade 7 | | |
| Lesson | Standard | Descriptor |
| 1, 4 | 1 | Describe characteristics common to living things, including growth and development, reproduction, cellular organization, use of energy, exchange of gases, and response to the environment. <ul style="list-style-type: none"> • Identifying homeostasis as the process by which an organism responds to its internal or external environment • Predicting how an organism’s behavior impacts the environment |
| Alabama Science Standards – Physical Science: Grade 8 | | |
| 1, 2, 4 | 1 | Identify steps within the scientific process. <ul style="list-style-type: none"> • Applying process skills to interpret data from graphs, tables, and charts • Identifying controls and variables in a scientific investigation • Measuring dimension, volume, and mass using Système International d'Unités (SI units) • Identifying examples of hypotheses • Identifying appropriate laboratory glassware, balances, time measuring equipment, and optical instruments used to conduct an investigation |
| 1, 2, 3, 4 | 11 | Explain the law of conservation of energy and its relationship to energy transformation, including chemical to electrical, chemical to heat, electrical to light, electrical to mechanical, and electrical to sound. |
| Alabama Mathematics Standards – Grades 6 – 8 | | |
| Grade 6 | | |
| Lesson | Standard | Descriptor |
| 1, 2, 3, 4 | 1 | Demonstrate computational fluency with addition, subtraction, multiplication, and division of decimals and fractions. |
| 1, 2, 3, 4 | 2 | Solve problems involving decimals, percents, fractions, and proportions. |
| 2 | 9 | Convert units of length, weight, or capacity within the same system (customary or metric). |
| 1, 3, 4, 5 | 10 | Interpret information from bar graphs, line graphs, and circle graphs. |
| Grade 7 | | |
| 1, 2, 3, 4 | 1 | Demonstrate computational fluency with addition, subtraction, and multiplication of integers. |
| 1, 2, 3, 4 | 2 | Use order of operations to evaluate numerical expressions. |
| 1, 2, 3, 4 | 3 | Solve problems requiring the use of operations on rational numbers. <ul style="list-style-type: none"> • Describing the method used • Determining the reasonableness of results • Using percents to solve problems, including problems involving discounts, taxes, commissions, and simple interest |

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| 1, 2, 3, 4 | 6 | Solve one- and two-step equations. |
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| 2 | 11 | Solve problems involving ratios or rates, using proportional reasoning. <ul style="list-style-type: none"> • Converting units of length, weight, or capacity from metric to customary and from customary to metric |
| Grade 8 | | |
| 1, 2, 3, 4 | 1 | Use various strategies and operations to solve problems involving real numbers. |
| 3, 4 | 3 | Use order of operations to evaluate and simplify algebraic expressions. |
| All lessons | 13 | Interpret data from populations, using given and collected data. <ul style="list-style-type: none"> • Representing the data with the most appropriate graph, including box-and-whisker plot, circle graph, and scatterplot |
| Alabama English Language Arts Standards: Grades 6 – 8 | | |
| Grade 6 | | |
| Lesson | Standard | Descriptor |
| All lessons | 3 | Apply strategies that include making complex predictions, identifying the likely source of a text, and comparing to comprehend sixth-grade informational and functional reading materials. <ul style="list-style-type: none"> • Drawing conclusions to extend meaning • Making generalizations • Using context clues to determine meaning • Identifying sequence of events • Previewing text features before reading |
| 1, 3, 4, 5 | 4 | Recognize the use of text elements, including implied main idea, explicit cause-effect relationships, and persuasive techniques, in sixth-grade informational and functional reading materials. <ul style="list-style-type: none"> • Identifying details related to main idea |
| 5 | 8 | Compose in persuasive mode for a specific purpose and audience, including clearly stated opinions with supporting details and reasons or examples to influence thought or action. <ul style="list-style-type: none"> • Using the steps of the writing process, including prewriting, drafting, revising, editing, and publishing in all forms of written composition • Demonstrating use of graphic organizers for prewriting and drafting • Organizing content of paragraphs and other written compositions, including topic sentences, supporting sentences, and concluding sentences with varied sentence structure • Using transitional words or phrases to help create coherence in compositions • Using tone appropriate to the topic, purpose, and audience |
| All lessons | 9 | Utilize vocabulary and spelling skills, including using homonyms, synonyms, and antonyms in writing. |
| All lessons | 13 | Utilize resource materials for supporting evidence in compositions. |
| 1, 3, 4, 5 | 14 | Use organizing and paraphrasing in the research process. <ul style="list-style-type: none"> • Taking notes to gather and summarize information |

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| All lessons | 17 | Use listening skills for remembering significant details, directions, and sequences. <ul style="list-style-type: none"> • Summarizing messages for content and purpose • Practicing note-taking skills to gather and summarize information • Paraphrasing spoken messages to summarize or clarify • Recognizing propaganda as an art of persuasion in evaluating content and purpose |
| Grade 7 | | |
| Lesson | Standard | Descriptor |
| All lessons | 4 | Apply strategies that include setting purposes for reading, distinguishing fact from opinion, making generalizations, and reviewing to comprehend informational and functional reading materials. <ul style="list-style-type: none"> • Determining sequence of events to enhance text understanding • Using specific context clues to determine meaning of unfamiliar words • Applying self-monitoring strategies for text understanding • Drawing conclusions to determine unstated intent |
| 1, 3, 4, 5 | 5 | Recognize the use of textual elements, including main idea and supporting details, to gain information from various text formats, including graphs. |
| All lessons | 9 | Compose in descriptive, narrative, expository, and persuasive modes with a thesis sentence and introductory, supporting, and concluding paragraphs when appropriate. Using transitional words and phrases for coherence |
| 1, 2, 3, 4 | 13 | Apply steps in the research process to identify a problem or issue, locate resources and information, and present findings. <ul style="list-style-type: none"> • Taking notes to gather and summarize information |
| 1, 3, 4, 5 | 14 | Present findings from inquiry and research using a variety of resources. <ul style="list-style-type: none"> • Examples: projects, brochures, display boards, speeches, multimedia presentations |
| All lessons | 15 | Demonstrate listening skills, including identifying the main idea, detail, purpose, and bias in group discussions, public speeches, and media messages. |
| Grade 8 | | |
| Lesson | Standard | Descriptor |
| All lessons | 4 | Apply strategies appropriate to type of reading material, including making inferences to determine bias or theme and using specific context clues, to comprehend eighth-grade informational and functional reading materials. <ul style="list-style-type: none"> • Applying self-monitoring strategies for text understanding • Comparing predicted with actual content in informational and functional reading materials • Distinguishing fact from opinion in informational reading materials • Confirming author's credentials • Determining sequence of steps, events, or information |
| 1, 3, 4, 5 | 8 | Write in narrative, expository, and persuasive modes with attention to descriptive elements. |

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| All lessons | 14 | Identify characteristics of spoken formal and informal language. |
| Alabama Health Education Standards: Grades 6 – 8 | | |
| Grade 6 | | |
| Lesson | Standard | Descriptor |
| 3, 4, 5 | 1 | Identify health advocacy strategies. |
| 3, 5 | 2 | Identify services provided by local, state, and national health agencies and organizations. |
| 3, 5 | 3 | Identify the influence of positive and negative cultural messages on health behaviors. |
| 3, 4, 5 | 4 | Recognize criteria to be used in determining reliability of health information, products, and services. |
| 2, 3, 4, 5 | 5 | Describe practices that are related to the control of disease and other health problems. |
| All lessons | 7 | Describe current issues that relate to healthy living. |
| All lessons | 10 | Apply effective verbal and nonverbal communication skills to enhance relationships. |
| 2, 3, 4, 5 | 11 | Distinguish between healthy and unhealthy dietary patterns. |
| 3, 5 | 16 | Describe the interrelationship of adolescent health risk behaviors. |
| Grade 7 | | |
| Lesson | Standard | Descriptor |
| 3, 5 | 1 | Analyze how health-related decisions are influenced by individuals, families, and community values. |
| 3, 5 | 3 | Identify appropriate providers for health care needs. |
| 3, 4, 5 | 4 | Describe how health is affected by the environment. |
| 3, 4, 5 | 6 | Describe the influence of family history on the causes and prevention of disease and other health problems. |
| 3, 5 | 8 | Explain the benefits of preventive health care. <ul style="list-style-type: none"> • obtaining corrective lenses as a result of vision screening, playing music at safe volume to prevent hearing problems, participating in vaccination programs to prevent diseases, participating in hearing and scoliosis screenings at school to detect possible problems |
| 3, 4, 5 | 9 | Describe how decisions regarding health behaviors produce consequences for self and others. <ul style="list-style-type: none"> • Examples: asking for help when depressed; avoiding drugs, alcohol, and sexual behaviors |
| All lessons | 15 | Analyze the short- and long-term effects of risk behaviors that compromise adolescent health. |
| Grade 8 | | |
| 3, 5 | 1 | Apply health advocacy strategies. <ul style="list-style-type: none"> • Examples: writing and recording public service announcements for school or community broadcasts, writing letters to editors of local newspapers, implementing a school improvement project |

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| 2, 5 | 2 | Locate accurate health information for personal use. <ul style="list-style-type: none"> • Examples: cancer prevention—American Cancer Society; heart health—American Heart Association; respiratory health—American Lung Association; good mental health—school counselor, pediatrician |
| 3, 5 | 4 | Recognize cultural influences that impact health behaviors. |
| 3, 4, 5 | 5 | Analyze how environment and personal health are interrelated. |
| 2, 3, 4, 5 | 6 | Explain the impact of personal health behaviors on the functioning of body systems. <ul style="list-style-type: none"> • Examples: effects of sexual behavior on the reproductive system, effects of smoking on the respiratory system, effects of exposure to sun on development of abnormal cellular changes in the skin |
| 5 | 7 | Develop a positive personal health behavior plan. |
| 3, 5 | 8 | Identify barriers to effective communication about health issues. |
| 5 | 9 | Apply decision-making skills to improve a personal health behavior. |
| 3, 4, 5 | 10 | Assess the consequences of poor nutrition. <ul style="list-style-type: none"> • Examples: increased risk for heart disease, obesity, cancer; delayed development and disability; fatigue; poor academic performance; osteoporosis |