LOOKING GOOD, FEELING GOOD: FROM THE INSIDE OUT – EXPLORING BONE, MUSCLE, AND SKIN		
Delaware Science GLEs: Grades 6 – 8		
Lesson	**GLE**	**Descriptor**
2, 4, 5, 6	**1.1**	Frame and refine questions that can be investigated scientifically, and generate testable hypotheses.
2, 4, 5, 6	**1.2**	Design and conduct investigations with controlled variables to test hypotheses.
2, 4, 5, 6	**1.3a**	Accurately collect data through the selection and use of tools and techniques appropriate to the investigation.
3, 4, 5, 6	**1.3b**	Construct tables, diagrams and graphs, showing relationships between two variables, to display and facilitate analysis of data. Compare and question results with and from other students.
2, 3, 4, 5, 6	**1.4**	Form explanations based on accurate and logical analysis of evidence. Revise the explanation using alternative descriptions, predictions, models and knowledge from other sources as well as results of further investigations.
2, 3, 4, 5, 6	**1.5**	Communicate scientific procedures, data, and explanations to enable the replication of results. Use computer technology to assist in communicating these results. Critical review is important in the analysis of these results.
2, 3, 4, 5, 6	**1.6**	Use mathematics, reading, writing, and technology when conducting scientific inquires.
Grade 6		
4, 5	**3**	List, as basic forms of energy, light, heat, sound, electrical, and energy of motion.
All lessons	**6**	Explain that human body systems are comprised of organs (e.g., the heart, the stomach, and the lungs) that perform specific functions within one or more systems.
4, 5	**6**	Conduct simple investigations (how the body reacts to exercise, changes in temperature, etc.) to determine how the systems in the human organism respond to various external stimuli to maintain stable internal conditions.
4, 5, 6	**6**	Use knowledge of human body systems to synthesize research data and make informed decisions regarding personal and public health.
2, 4, 5, 6	**6**	Research and report on how body systems are affected by lifestyle choices such as diet or exercise, for example lack of exercise leads to cardiovascular disease.
Grade 7		
1, 2	**6**	Explain that individual cells are able to carry out basic life functions that are similar in organisms; however, explain that in multi-cellular organisms, cells become specialized, interdependent upon one another, and unable to survive independently.
All lessons	**6**	Describe the hierarchical organization of multi-cellular organisms. Recognize that multi-celled organisms are organized as specialized cells within tissues that make up organs within organ systems, which work together to carry out life processes for the entire organism.
2, 4	**6**	Recognize that the process of cellular respiration in the mitochondria of both plants and animals releases energy from food. Indicate that this food provides the energy and materials for repair and growth of cells. Explain the complementary nature between photosynthesis and cellular respiration.

Grade 8		
4	**3**	Identify that energy can exist in several forms, and when it changes from one form into another the process is called energy transformation.
2, 4, 5	**6**	Understand and describe how the maintenance of a relatively stable internal environment is required for the continuation of life and explain how stability is challenged by changing physical, chemical, and environmental conditions.
4, 5, 6	**7**	Investigate and discuss how short-term physiological changes of an organism (e.g., skin tanning, muscle development, formation of calluses) differ from long-term evolutionary adaptations (e.g., white coloration of polar bears, seed formation in plants) that occur in populations of organisms over generations.

Delaware Mathematics GLEs: Grades 6 – 8

Grade 6		
Lesson	**GLE**	**Descriptor**
4, 5	**1**	Demonstrate equivalence of decimals, fractions, and percents using multiple models.
4, 5	**1**	Multiple fractions by whole numbers and explain the result.
4, 5	**1**	Multiply decimals to solve real-world problems.
4, 5, 6	**1**	Select and use appropriate methods and tools for computing (e.g., mental computation, estimation, calculators, paper, and pencil) depending on the context and nature of the computation.
4, 5, 6	**2**	Demonstrate that a given situation may be represented by a table, graph, or equation.
4	**2**	Create a table or scatter plot to represent the relationship between two variables.
2, 4, 5, 6	**4**	Collect and organize numerical (whole number or decimal) data in order to answer a question.
4, 5, 6	**4**	Construct displays of data (e.g., circle graphs, scatter plots, frequency counts) for a single data set.
2, 4, 5, 6	**4**	Defend conclusions drawn from the interpretation of data by comparing one data set to another.
2, 4, 5, 6	**5**	Solve problems that arise in mathematics and other contexts.
4, 5, 6	**6**	Select and use various types of reasoning and methods of proof.
4, 5, 6	**7**	Communicate mathematical thinking coherently and clearly to peers, teachers, and others.
4, 5, 6	**7**	Use the language of mathematics to express mathematical ideas precisely.
4, 5, 6	**8**	Recognize and apply mathematics in contexts outside of mathematics.
Grade 7		
4, 5, 6	**1**	Use a variety of strategies to add, subtract, multiply, and divide fractions.
4, 5, 6	**1**	Add, subtract, multiply, and divide integers.
4, 5, 6	**1**	Use an estimation or mental math strategy to demonstrate the reasonableness on an exact answer.
4, 5, 6	**1**	Select and use appropriate methods and tools for computing (e.g., mental computation, estimation, calculators, paper, and

		pencil) depending on the context and nature of the computation.
4, 5, 6	**2**	Connect different representations of the same situation to one another using tables, graphs, and rules.
4, 5, 6	**2**	Describe how the dependent and independent variables are related in a given situation.
4, 5, 6	**4**	Pose questions that can be answered by collecting and organizing data from experiments, surveys, and relevant print and electronic resources.
4, 5, 6	**4**	Construct displays of data for single data sets (e.g., stem-and-leaf plots) or in order to study the relationship between related data sets (scatter plots).
4, 5, 6	**4**	Defend or dispute conclusions drawn from the interpretation of data by comparing one data set to another.
4, 5, 6	**5**	Solve problems that arise in mathematics and other contexts.
4, 5, 6	**6**	Select and use various types of reasoning and methods of proof.
4, 5, 6	**7**	Communicate mathematical thinking coherently and clearly to peers, teachers, and others.
4, 5, 6	**7**	Use the language of mathematics to express mathematical ideas precisely.
4, 5, 6	**8**	Recognize and apply mathematics in contexts outside of mathematics.
Grade 8		
4, 5, 6	**1**	Use meaningful relationships between addition, subtraction, multiplication, and division of integers to justify the rules of operations.
6	**1**	Apply proportional reasoning strategies to solve real-world problems.
2, 4, 5, 6	**1**	Select and use appropriate methods and tools for computing (e.g., mental computation, estimation, calculators, paper, and pencil) depending on the context and nature of the computation.
4, 5, 6	**2**	Use tables, graphs, and symbolic reasoning to identify functions as linear or nonlinear.
6	**3**	Apply angle relationships to solve problems.
6	**3**	Apply proportional reasoning strategies to find unknown sides of similar triangles.
2, 4, 5, 6	**4**	Pose questions that can be answered by collecting and organizing data from experiments, surveys, and relevant print and electronic resources.
4, 5, 6	**4**	Construct displays of data to represent individual sets of data (e.g., histograms, box plots) or to explore the relationship between related sets of data (scatter plots, line graphs); describe the correspondence between data sets and their graphical displays.
4, 5, 6	**4**	Defend or dispute conclusions drawn from the interpretation of data by comparing sets of data or exploring possible relationships based upon scatter plots of related data and approximate lines of fit.
4, 5, 6	**4**	Analyze a representative sample to make inferences about a population.
4, 5, 6	**5**	Solve problems that arise in mathematics and other contexts.
4, 5, 6	**6**	Select and use various types of reasoning and methods of proof.
4, 5, 6	**7**	Communicate mathematical thinking coherently and clearly to peers, teachers, and others.

4, 5, 6	**7**	Use the language of mathematics to express mathematical ideas precisely.
4, 5, 6	**8**	Recognize and apply mathematics in contexts outside of mathematics.
Delaware Reading and Research GLEs: Grades 6 – 8		
Lesson	**GLE**	**Descriptor**
2, 3, 4, 5, 6, 7	**2.1**	Identify and use the meanings of high frequency Greek and Latin derived roots and affixes to determine the meaning of unknown words (e.g., bio, derm, anti, graph, tele).
2, 3, 4, 5, 6, 7	**2.3a**	Use "During Reading" strategies by: assimilating prior knowledge, making and revising predictions, generating and answering questions, summarizing, rereading to clarify information, adjusting reading rate, inferring information, using mental imagery, and seeking the meaning of unknown vocabulary.
2, 3, 4, 5, 6, 7	**2.3c**	Explain personal connections to the ideas of information in the text(s).
2, 3, 4, 5, 6, 7	**2.3c**	Restate in own words the main events in the text.
2, 3, 4, 5, 6, 7	**2.3c**	Periodically summarize while reading.
2, 3, 4, 5, 6, 7	**2.3c**	Use a graphic organizer or other note taking technique to record important ideas or information.
2, 3, 4, 5, 6, 7	**2.4bI/T**	Describe (6) /Apply (7 & 8) essential information from text features (e.g., title, author, cover, pictures, captions, maps, chapter headings, information from charts and graphs, illustrations, glossaries, indices) to enhance understanding of text.
2, 3, 4, 5, 6, 7	**2.4bI/T**	Apply knowledge of (6 & 7) / Analyze (8) text structures in informative/technical texts (sequence/chronological order, classification, definition, process, description, comparison, problem/solution, simple cause/effect) to make meaning of text.
2, 3, 4, 5, 6, 7	**2.4d**	Summarize the main ideas and supporting details in an informative/technical text.
2, 3, 4, 5, 6, 7	**2.4d**	Retell in order the important events in a text.
2, 3, 4, 5, 6, 7	**2.4d**	Restate in order the steps of a task in an informative/technical text.
2, 3, 4, 5, 6, 7	**2.4e**	Summarize a text capturing the most important parts of the original piece.
2, 3, 4, 5, 6, 7	**2.4f**	Create meaning from a variety of media.
2, 3, 4, 5, 6, 7	**2.4h**	Identify facts in a text and determine their relevance to the issue. (7 & 8)
2, 3, 4, 5, 6, 7	**2.4h**	Use word clues (e.g., believe, feel, think, worst, best, least, most, never, always) to determine that a statement is an opinion.
2, 3, 4, 5, 6, 7	**2.4h**	Question information in a text to determine if it is factual.
2, 3, 4, 5, 6, 7	**2.4i**	Use the combination of background knowledge and explicitly stated information from the text to answer questions they have as they read.
2, 3, 4, 5, 6, 7	**2.4i**	Make connections between conclusions they draw and other beliefs or knowledge.
2, 3, 4, 5, 6, 7	**2.4i**	Make critical or analytical judgments about what they read.
2, 3, 4, 5, 6, 7	**2.4i**	Use texts to make generalizations.
2, 3, 4, 5, 6, 7	**2.4k 2.6b**	Draw on prior knowledge and experience to connect personally to text (text-to-self, text-to-text connections).

2, 3, 4, 5, 6, 7	**2.4k 2.6b**	Draw on prior knowledge of the world (other books, television, movies) to make text-to-world connections).
2, 3, 4, 5, 6, 7	**2.4k 2.6b**	Apply information from text to real life situations (text-to-self, text-to-text, text-to-world connections) in order to make meaning of text.
2, 3, 4, 5, 6, 7	**2.4k 2.6b**	Employ reading strategies (e.g., skimming, scanning) to locate and apply information in varied print and non-print (e.g., computers, electronic media, interviews) sources for inquiry projects and other authentic tasks.
2, 3, 4, 5, 6, 7	**2.5a**	Synthesize information by comparing, eliminating and merging disparate pieces into one coherent whole. (7 & 8)
2, 3, 4, 5, 6, 7	**2.5b**	Identify (6)/ Use (7 & 8) information in a text to develop a logical opinion.
2, 3, 4, 5, 6, 7	**2.5d**	Use prior knowledge of a concept along with information in a text to: draw conclusions (including implied main ideas) that require analysis and/or evaluation.
2, 3, 4, 5, 6, 7	**2.5i 2.5j**	Recognize and identify how propaganda and persuasive techniques are used in a variety of forms (e.g., television, commercials, movies, advertisements, newspapers, billboards, magazines, catalogues and packaging) to enhance the meaning of a text.
2, 3, 4, 5, 6, 7	**3.1a1**	Locate information using appropriate sources and strategies.
3, 6, 7	**3.1a1**	Use multiple sources of information (books, television, videos/DVDs, resource people, cassettes, dictionaries, recordings, encyclopedias, and available databases).
3, 6, 7	**3.1a1**	Use teacher-selected Internet sites and data bases to access information.
2, 3, 4, 5, 6, 7	**3.2a**	Use technology to synthesize information by using a meaningful format (text, drawings, graphs, diagrams, and graphics) to express ideas.
2, 3, 4, 5, 6, 7	**3.2b**	Present gathered information in an oral or written format which uses sentences organized in a paragraph form to tell about a designated topic and fulfills the identified purpose as clearly indicated in the topic sentence.
2, 3, 4, 5, 6, 7	**3.3a2**	Evaluate information in terms of credibility and accuracy.
2, 3, 4, 5, 6, 7	**3.3b2**	Use prior knowledge of a concept along with information in a text to draw conclusions (including implied main ideas) that require analysis and/or evaluation.

Delaware Writing and Oral Communication GLEs: Grades 7 & 8

Lesson	GLE	Descriptor
All lessons	**1.1**	Writers will produce texts that exhibit the following text features, all of which are consistent with the genre and purpose of the writing: development, organization, style, and word choice.
All lessons	**1.2**	Writers will produce texts that exhibit the following language conventions at all grade levels: sentence formation, conventions.
All lessons	**1.3**	Writers will produce examples that illustrate the following classifications: by the completion of the grade, writers will be able to write persuasive, informative, and expressive pieces.
All lessons	**1**	Write in a manner that demonstrates an awareness of the audience (e.g., prior knowledge, motivation).
All lessons	**1**	Communicate necessary background information and/or definitions.
All lessons	**1**	Write to audiences that can be increasingly distant (e.g., unknown but familiar personalities/roles such as local politicians, in

		addition to more familiar "others" from previous grades).
All lessons	**1**	Students self-select appropriate forms and/or respond to assignments for a variety of occasions.
All lessons	**1**	Text-based writing: combine information from text and prior knowledge to elaborate upon ideas in writing (text-to self, text-to-text, text-to world connections) that reveal to the reader the writer's depth of understanding of the issue.
All lessons	**1**	Develop a conclusion that moves beyond summary (e.g., answer the "so what?" question about the significance of the issue, reinforcing the importance of information [7], raising related issues [8]).
All lessons	**1**	Use standard punctuation (commas, colons, hyphens, dashes, and italics) correctly.
All lessons	**1.4**	Choose words and use voice appropriate to audience and purpose (e.g., inform, persuade, entertain)
All lessons	**1.4**	Speak and listen for a variety of audiences (e.g., classroom, real-life) and purposes (e.g., awareness, enjoyment, information, problem solving)
All lessons	**1.5**	Follow basic directions.
All lessons	**1.5**	Listen attentively by making eye contact, facing the speaker, asking questions, and paraphrasing what is said and organizing for clarity.
All lessons	**1.5**	Ask and respond to questions from teachers and other group members.
All lessons	**1.5**	Engage in communication to clarify thoughts, solve problems, make decisions, discuss issues, and extend understandings.
All lessons	**1.6**	Use words that reflect a growing range of interests and knowledge.
All lessons	**1.6**	Give and follow oral directions.
All lessons	**1.7**	Initiate conversation with peers and adults.
All lessons	**1.7**	Follow rules for conversation.
All lessons	**1.7**	Participate in a variety of roles in group discussions (e.g., active listener, contributor, discussion leader).
All lessons	**1.7**	Ask and respond to questions in group settings (7).
All lessons	**1.7**	Explain opinions by citing evidence and referring to sources (8).
All lessons	**1.7**	Volunteer relevant information, ask relevant questions, and answer questions directly (7).
All lessons	**1.7**	Participate in a discussion without dominating (8).

Delaware Health Education GLEs: Middle School		
Lesson	**GLE**	**Descriptor**
2, 5	**NUT 1.1**	Know the benefits of healthful eating (short-term and long-term benefits and risks).
2, 5	**NUT 1.3**	Know the benefits of consuming more water, fruits, vegetables, grains, and calcium-rich foods and decreasing fat intake.
4	**NUT 4.1**	Know how energy is expended during exercise/activity.
4, 5	**PA 1.1**	Know the benefits and risks of physical activity, including mental and social benefits.
6	**PA 1.9**	Know strategies for protection from cold, heat and sun during activity, e.g., hydration, sunscreen.
4, 5	**PA 1.10**	Know the relationship between healthful physical activity and body composition.

4, 5, 6	**EH 1.1**	Know how to accept personal responsibility for behavior.
All lessons	**EH 3.2**	Know skills for effective speaking, listening, and nonverbal communication.
6	**PCH 2.1**	Know the importance of immunizations, using sun screen, wearing protective clothing.
4, 5, 6, 7	**CEH 1.1**	Know home, school and community resources to promote health, e.g., library, Internet, health department, voluntary agencies.
6	**CEH 2.1**	Know environmental health risks.