

***EDUCATIONAL TECHNOLOGY'S RELATIONSHIP TO OTHER CONTENT STANDARDS  
GRADE LEVEL EXPECTATIONS (GLEs)  
AND PERFORMANCE EXPECTATIONS (PEs)***

[Available online at <http://www.k12.wa.us/edtech/GLE-PE-Tech.aspx>]

## **Grade 4**

### **Communications GLE 1.2.2 - Understands point of view and persuasion in mass media.**

- Identifies and explains examples of persuasion used in mass media (e.g., advertisements in magazines, radio, television, product displays, and pop-ups on the Internet).

### **Communications GLE 3.1.1 - Understands how to plan for effective oral communication and presentation.**

- Selects material from a variety of resources (e.g., from a magazine, a video, or the Internet).
- Uses notes or other memory aids to structure presentation (e.g., prepared outline, graphic organizers).
- Uses planning tools (graphic organizers, notes, drawings) to organize information in a logical sequence using transitions (e.g., chronological order).

### **Communications GLE 3.2.1 - Understands how to use available relevant media and resources to convey a message or enhance oral presentations.**

- Uses visual aids with teacher guidance. (e.g., illustrations, photos, bar graphs, line plots, tables, charts and maps).
- Uses presentation technology with teacher guidance (e.g., presentation software, digital and video cameras)
- Uses reliable online sources with teacher guidance (e.g., Internet, encyclopedias).

### **Health GLE/Benchmark 3.2.1a - Know reliable sources of health information.**

- Apply research skills: fact vs. myth, fiction vs. non-fiction, web-based information.

### **Reading GLE 2.2.2 - Apply features of printed and electronic text to locate and comprehend text.**

- Use icons, pull-down menus, key word searches on an electronic device.

### **Reading GLE 2.3.2 - Apply understanding of systems for organizing information and analyze appropriate sources.**

- Select appropriate resources for locating information (e.g., thesaurus, website, directory) on a specific topic or for a specific purpose.

### **Science APPA (Grades 4-5) - Technology involves changing the natural world to meet human needs or wants.**

- Describe ways that people use technology to meet their needs and wants (e.g., text messages to communicate with friends).

Tracking hurricanes: includes an interactive site <http://www.sciencenetlinks.com/Esheet.php?DocID=61>

### **Science APPC (Grades 4-5) - Problems of moderate complexity can be solved using the technological design process.**

- Define a problem and list several criteria for a successful solution. Research the problem to better understand the need and to see how others have solved similar problems.

### **Science APPG (Grades 4-5) - Science and technology have greatly improved food quality and quantity, transportation, health, sanitation, and communication.**

- Describe specific ways that science and technology have improved the quality of the students' lives.

**Social Studies GLE 2.2.1 - Understands the basic elements of Washington State's economic system, including agriculture, businesses, industry, natural resources, and labor.**

- Examines how technology and transportation industries impact the economy of Western Washington.

**Social Studies GLE 5.2.1 - Creates and uses a research question to conduct research on an issue or event.**

**Social Studies GLE 5.4.2 - Prepares a list of resources, including the title, author, type of source, date published, and publisher for each source.**

**Writing GLE 1.1.1 - Applies more than one strategy for generating ideas and planning writing.**

- Explains the difference between generating and organizing ideas and adjusts prewriting strategies accordingly (e.g., brainstorm list for generating ideas and narrowing topic, graphic organizer for organizing ideas, story boards).
- Records information or ideas at prewriting and/or drafting stages (e.g., notes, lists, free writing, webs, or graphic organizers).
- Graphic organizer to create an outline:  
[http://interactives.mped.org/view\\_interactive.aspx?id=722&title=](http://interactives.mped.org/view_interactive.aspx?id=722&title=)
- Gathers information from more than one resource and synthesizes ideas to plan writing (e.g., uses information from the internet and from books for a report).
- Determining value of a non fiction source:  
[http://www.readwritethink.org/files/resources/lesson\\_images/lesson147/NonfictionBooksEval.pdf](http://www.readwritethink.org/files/resources/lesson_images/lesson147/NonfictionBooksEval.pdf)

**Creating a graphic Map interactive:** <http://www.readwritethink.org/classroom-resources/student-interactives/graphic-30039.html>

**Writing GLE 1.4.1 - Applies understanding of editing appropriate for grade level.**

- Uses more than one resource (e.g., dictionary, writing guide, spell check, peers, adults).

**Writing GLE 1.5.1 - Publishes in more than one format for specific audiences and purposes.**

- Publishes pieces and explains choice of format, graphics, and illustrations. Create a Word Jumble visually <http://www.wordle.net/create>
- Uses a variety of available technology as part of publication (e.g., software program, overhead projector, video). Use a Word Mover to create a poem: <http://www.readwritethink.org/classroom-resources/lesson-plans/magnetism-language-parts-speech-1058.html>

**Writing GLE 1.6.2 - Uses collaborative skills to adapt the writing process.**

- Contributes to different parts of writing process when working on a class newspaper (e.g., group plans together; partners prewrite and compose article on classroom computer; individuals illustrate and format; group revises, edits, and publishes).

## Grade 5

### **Communications GLE 1.2.2 - Understands and analyzes point of view and persuasion in mass media.**

- Selects and explains examples of persuasion (e.g., band-wagon, peer pressure, testimonials/endorsements) used in mass media (e.g., advertisements in magazines, radio, television, product displays, newspaper, and advergames on the Internet).

### **Communications GLE 3.1.1 - Understands how to plan for effective oral communication and presentation.**

- Uses tools (e.g., template for a simple outline, graphic organizers, notecards) to organize information in a logical sequence (e.g., in order of importance) using smooth transitions.

### **Communications GLE 3.2.1 - Applies skills and strategies in using available relevant media and resources to convey a message and enhance oral presentations.**

- Uses available presentation technologies independently.
- Uses reliable online sources (e.g., Internet, encyclopedia).

Great worksheet for evaluating non-fiction

[http://www.readwritethink.org/files/resources/lesson\\_images/lesson147/NonfictionBooksEval.pdf](http://www.readwritethink.org/files/resources/lesson_images/lesson147/NonfictionBooksEval.pdf)

### **Health GLE/Benchmark 3.2.1a - Know reliable sources of health information.**

- Apply research skills: fact vs. myth, fiction vs. non-fiction, web-based information.

### **Reading GLE 2.2.2 - Apply understanding of printed and electronic text features to locate information and comprehend text.**

- Use organizational features and electronic sources (such as headings and numberings, CD-ROM, Internet, pull-down menus, key word searches, and icons) to access information.

A source that provides articles and a resource for nnotetaking:

[http://interactives.mped.org/view\\_interactive.aspx?id=764&title=](http://interactives.mped.org/view_interactive.aspx?id=764&title=)

### **Reading GLE 3.1.1 - Analyze appropriateness of a variety of resources and use them to perform a specific task or investigate a topic.**

- Locate, select, and use a variety of library and Internet materials appropriate to a task or best suited to investigate a topic.

Excellent way to discuss narrowing results to sites to websites and questions they will have:

[http://interactives.mped.org/view\\_interactive.aspx?id=653&title=](http://interactives.mped.org/view_interactive.aspx?id=653&title=)

### **Science APPA (Grades 4-5) - Technology involves changing the natural world to meet human needs or wants.**

- Describe ways that people use technology to meet their needs and wants (e.g., text messages to communicate with friends).

### **Science APPC (Grades 4-5) - Problems of moderate complexity can be solved using the technological design process.**

- Define a problem and list several criteria for a successful solution. Research the problem to better understand the need and to see how others have solved similar problems.

### **Science APPG (Grades 4-5) - Science and technology have greatly improved food quality and quantity, transportation, health, sanitation, and communication.**

- Describe specific ways that science and technology have improved the quality of the students' lives.

- An exercise for dragging technology and resources into alignment  
[http://www.econedlink.org/lessons/popup.php?lesson\\_number=206&flash\\_name=em206\\_dragndrop.swf](http://www.econedlink.org/lessons/popup.php?lesson_number=206&flash_name=em206_dragndrop.swf)

**Social Studies GLE 4.2.3 - Understands how technology and ideas have affected the way people live and change their values, beliefs, and attitudes.**

**Social Studies GLE 5.2.1 - Understands how essential questions define the significance of researching an issue or event.**

**Social Studies GLE 5.4.2 - Prepares a list of resources, including the title, author, type of source, date published, and publisher for each source, and arranges the sources alphabetically.**

**Writing GLE 1.1.1 - Applies more than one strategy for generating ideas and planning writing.**

- Gathers information from a range of sources, formulates questions, and uses an organizer (e.g., electronic graphic organizer, chart) to analyze and/or synthesize to plan writing.

Different methods for idea generating in writing:

<http://www.readwritethink.org/files/resources/interactives/storymap/>

**Writing GLE 1.2.1 - Produces multiple drafts.**

- Drafts by hand and/or on the computer.

**Writing GLE 1.3.1 - Revises text, including changes in words, sentences, paragraphs, and ideas.**

- Uses multiple resources to identify needed changes (e.g., writing guide, peers, adults, computer, thesaurus).

**Writing GLE 1.4.1 - Applies understanding of editing appropriate for grade level.**

- Uses multiple resources regularly (e.g., dictionary, peers, adults, available technology, writing guide).

**Writing GLE 1.5.1 - Publishes in more than one format for specific audiences and purposes.**

- Uses a variety of available technology as part of publication (e.g., slide show, overhead projector, publication software).

**Writing GLE 1.6.2 - Uses collaborative skills to adapt writing process.**

- Contributes to different parts of writing process when working on a class poetry book (e.g., individuals draft poem; group plans format together; individuals submit word processed poems; team edits; class publishes).

Writing a poem: <http://www.readwritethink.org/files/resources/interactives/riddle/index.html>

## Grade 6

### **Communications GLE 1.2.2 - Analyzes bias and the use of persuasive techniques in mass media.**

- Examines and explains technique(s) used to persuade and determines the intended effect on target audience (e.g., emotional appeal – pathos appeals, fallacies, language tools).
- Examines the purpose and use of visual and auditory information in the media (e.g., automobiles, billboards, news reports, t-shirts, Internet sites).

### **Communications GLE 3.2.1 - Uses available relevant technology and resources to support or enhance a presentation.**

- Uses technology to inform and/or enhance presentations (e.g., print, online resources, visual display, presentation technology, video streaming, digital and video cameras).

A combination science, writing and presentation assignment:

<http://www.readwritethink.org/classroom-resources/lesson-plans/inventing-presenting-unit-persuasive-163.html?tab=4#student-objectives>

### **Reading GLE 2.2.2 - Apply understanding of printed and electronic text features to locate information and comprehend text.**

- Use organizational features and electronic sources (such as headings and numberings, CD-ROM, Internet, pull-down menus, key word searches, and icons) to access information.

**Natural Gas in Society** <http://www.adventuresinenergy.org/main.swf>

### **Reading GLE 3.1.1 - Analyze appropriateness of a variety of resources and use them to perform a specific task or investigate a topic.**

- Locate, select, and use a variety of library, web-based, and Internet materials appropriate to the task or best suited to investigate the topic.
- Use information from various sources to investigate a topic (e.g., read newspaper want ads, websites, catalogs, yellow pages to decide which products or services to buy).

Investigating Ships and Comparing Size: <http://www.sciencenetlinks.com/Esheet.php?DocID=51>

**Science Inquiry INQ A – E (Grades 6-8) - Question and investigating – Students revise questions so they can be answered scientifically, and then design an appropriate investigation to answer the question and carry out the study, using appropriate technologies, including computers.**

**Science Application APPA (Grades 6-8) - People have always used technology to solve problems.**

**Advances in human civilization are linked to advances in technology.**

- Describe how a technology has changed over time in response to societal challenges.

**Science Application APPC (Grades 6-8) - Science and technology are interdependent. Science drives technology by demanding better instruments and suggesting ideas for new designs. Technology drives science by providing instruments and research methods.**

- Give examples to illustrate how scientists have helped solve technological problems and how engineers have aided science.

**Social Studies GLE 4.2.3 - Understands and analyzes how technology and ideas from ancient civilizations have impacted world history.**

**Social Studies GLE 5.2.1 - Creates and uses research questions to guide inquiry on an historical event.**

**America on the Move Interaction:**

<http://americanhistory.si.edu/onthemove/games/game2/game2.html>

**Social Studies GLE 5.2.2 - Analyzes the validity, reliability, and credibility of information from a variety of primary and secondary sources while researching an issue or event.**

**Social Studies GLE 5.4.2 - Understands and demonstrates the ethical responsibility one has in using and citing sources and the rules related to plagiarism and copyright.**

Fair Use Guide interactive: [http://interactives.mped.org/view\\_interactive.aspx?id=758&title=](http://interactives.mped.org/view_interactive.aspx?id=758&title=)

**Writing GLE 1.1.1 - Applies more than one strategy for generating ideas and planning writing.**

- Maintains a journal or an electronic log to collect and explore ideas; records observations, dialogue, and/or description for later use as a basis for informational or literary writing.
- Uses a variety of prewriting strategies (e.g., story mapping, listing, webbing, jotting, outlining, free writing, brainstorming).

**Writing GLE 1.2.1 - Produces multiple drafts.**

- Drafts by hand and/or on the computer.

**Writing GLE 1.4.1 - Applies understanding of editing appropriate for grade level.**

- Uses multiple resources regularly (e.g., dictionary, peers, adults, electronic spell check, writing/style guide, textbook).

**Writing GLE 1.5.1 - Publishes in a format that is appropriate for specific audiences and purposes.**

- Publishes using a range of graphics and illustrative material (e.g., photos, charts, graphs, diagrams, maps).
- Publishes material in appropriate form (e.g., slide show) and format (e.g., slide layout, color, font, keywords and phrases instead of whole sentences) for visual and dramatic presentations.
- Uses different available technologies to produce a finished product (e.g., word processor, spreadsheets, multimedia).

**Writing GLE 1.6.2 - Uses collaborative skills to adapt writing process.**

- Delegates parts of writing process to team members (e.g., during prewriting, one team member gathers Internet information while another uses the library periodicals).
- Collaborates on drafting, revising, and editing.
- Collaborates on final layout and publishing/presenting.

**Writing GLE 1.6.3 - Uses knowledge of time constraints to adjust writing process.**

- Creates a management time line, flow chart, or action plan for written projects (e.g., research paper).

**Writing GLE 2.4.1 - Produces documents used in a career setting.**

- Writes in forms associated with specific tasks or careers (e.g., application for student body office, presentation software as a visual aid).
- Selects and synthesizes information from technical and job-related documents for inclusion in writing (e.g., report that includes data/information derived from charts or graphs).

Writing a Letter Interactive:

[http://www.readwritethink.org/files/resources/interactives/letter\\_generator/](http://www.readwritethink.org/files/resources/interactives/letter_generator/)

## **Grade 7**

### **Communications GLE 3.1.1 - Applies skills to plan for effective oral communication and presentation.**

- Organizes and structures presentation to assist listener or viewer (e.g., multimedia, posing and answering a question).

### **Communications GLE 3.2.1 - Uses available relevant technology and resources to support or enhance a presentation.**

- Uses technology to inform and/or enhance presentations (e.g., print, online resources, visual display, presentation technology, video streaming, digital and video cameras).

### **Communications GLE 4.2.1 - Applies strategies for setting grade level appropriate goals and evaluates improvement in communication.**

- Monitors progress toward implementing the plan (e.g., through the use of audio portfolio, rubrics, reflection journals) making adjustments and corrections as needed.

### **Health GLE/Benchmark 2.2.2a - Understand the concepts and factors related to communicable diseases.**

- Research and design a presentation (poster, report, pamphlet, power point, etc.) describing transmission, prevention and treatment of a variety of sexually transmitted diseases.

### **Math PE 7.4.D - Construct and interpret histograms, stem-and-leaf plots, and circle graphs.**

### **Reading GLE 2.2.2 - Apply understanding of printed and electronic text features to locate information and comprehend text.**

- Use organizational features and electronic sources (such as headings and numberings, CD-ROM, Internet, pull-down menus, key word searches, and icons) to access information.

### **Reading GLE 3.1.1 - Evaluate appropriateness of a variety of resources and use them to perform a specific task or investigate a topic.**

- Select the best sources from library, web-based, and Internet materials for a specific task or to investigate a topic and defend the selection.
- Use information from various sources to investigate a topic (e.g., read newspaper want ads, websites, consumer reports, yellow pages to decide which products or services to buy).
- Follow multi-step directions (e.g., open a locker, fill out school forms, read a technical manual, design a webpage).

### **Science Inquiry INQ A – E (Grades 6-8) - Question and investigating – Students revise questions so they can be answered scientifically, and then design an appropriate investigation to answer the question and carry out the study, using appropriate technologies, including computers.**

### **Science Application APPA (Grades 6-8) - People have always used technology to solve problems. Advances in human civilization are linked to advances in technology.**

- Describe how a technology has changed over time in response to societal challenges.

**Science Application APPC (Grades 6-8) - Science and technology are interdependent. Science drives technology by demanding better instruments and suggesting ideas for new designs. Technology drives science by providing instruments and research methods.**

- Give examples to illustrate how scientists have helped solve technological problems and how engineers have aided science.

**Social Studies GLE 4.1.2 - Explaining how the following themes and developments help to define eras in Washington State history from 1854 to the present:**

- New technologies and industries (1945—1980).

**Social Studies GLE 4.2.3 - Understands and analyzes how technology and ideas have impacted Washington State or world history.**

**Social Studies GLE 5.2.1 - Creates and uses research questions to guide inquiry on an issue or event.**

**Social Studies GLE 5.2.2 - Evaluates the breadth of primary and secondary sources and analyzes notes to determine the need for additional information while researching an issue or event.**

**Social Studies GLE 5.4.2 - Creates annotated bibliography or works cited page using an appropriate format.**

**Writing GLE 1.1.1 - Analyzes and selects effective strategies for generating ideas and planning writing.**

- Generates ideas prior to organizing them and adjusts prewriting strategies accordingly (e.g., brainstorms list, then creates graphic organizer electronically).
- Uses a variety of prewriting strategies (e.g., story mapping, listing, webbing, jotting, outlining, free writing, brainstorming).
- Gathers and paraphrases information from a variety of resources (e.g., interviews, multimedia, periodicals) and chooses an organizer to analyze, synthesize, and/or evaluate information to plan writing.

**Writing GLE 1.2.1 - Analyzes task and composes multiple drafts when appropriate.**

- Drafts by hand and/or on the computer.

**Writing GLE 1.3.1 - Revises text, including changes in words, sentences, paragraphs, and ideas.**

- Uses effective revision tools or strategies (e.g., reading draft out loud, checking sentence beginnings, expanding sentences, using an electronic thesaurus).

**Writing GLE 1.4.1 - Edits for conventions.**

- Uses appropriate references and resources (e.g., dictionary, writing/style guide, electronic spelling and grammar check, conventions checklist, adults, peers).

**Writing GLE 1.5.1 - Publishes in formats that are appropriate for specific audiences and purposes.**

- Publishes using a range of graphics and illustrative material (e.g., photos, charts, graphs, tables, diagrams, cartoons).
- Publishes material in appropriate form (e.g., slide show, brochure, postcard) and format (e.g., colors, font, layout, key words and phrases instead of sentences) for visual and dramatic presentations (e.g., readers' theater script).



- Uses different available technologies to produce, design, and publish a finished product (e.g., word processor, photo software, presentation software, publishing software).

**Writing GLE 1.6.2 - Uses collaborative skills in adapting writing process.**

- Collaborates on final layout and publishing/presenting (e.g., travel brochure).

**Writing GLE 1.6.3 - Uses knowledge of time constraints to adjust writing process.**

- Creates a management time line for written projects (e.g., portfolios, research papers, ISearch papers).

**Writing GLE 2.3.1 - Uses a variety of forms/genres.**

- Integrates more than one form/genre in a single piece (e.g., a research paper about a local issue which includes caption with pictures, charts and graphs, and interviews).
- Produces a variety of new forms/genres, such as web pages.

**Writing GLE 2.4.1 - Produces documents used in a career setting.**

- Selects and synthesizes information from technical documents for inclusion in writing (e.g., report that includes data/information derived from charts or graphs).

## Grade 8

### **Communications GLE 3.1.1 - Applies skills to plan for effective oral communication and presentation.**

- Determines the occasion and the audience, selects a purpose (e.g., variety show, news broadcast, science experiment, data presentation, speech, interview).

### **Communications GLE 1.2.2 - Analyzes and evaluate bias and the use of persuasive techniques in mass media.**

- Examines the purpose and intended effects of visual and auditory information (e.g., news reports, commercials, Internet sites, debates).

### **Health GLE/Benchmark 2.2.2a - Understand the concepts and factors related to communicable diseases.**

- Research and design a presentation (poster, report, pamphlet, PowerPoint, etc.) describing transmission, prevention and treatment of a variety of sexually transmitted diseases.

### **Health GLE/Benchmark 3.2.2b - Analyze health information messages.**

- Develop a positive media campaign to promote healthy decisions.

### **Reading GLE 2.2.2 - Apply understanding of complex organizational features of printed text and electronic sources.**

- Use the features of electronic information to communicate, gain information, or research a topic.

### **Reading GLE 3.1.1 - Analyze web-based and other resource materials (including primary sources and secondary sources) for relevance in answering research questions.**

- Examine resource materials to determine appropriate primary sources and secondary sources to use for investigating a question, topic, or issue (e.g., encyclopedia and other reference materials, pamphlets, book excerpts, newspaper and magazine articles, letters to an editor).

### **Reading GLE 3.3.1 - Understand and apply appropriate reading strategies for interpreting technical and non-technical documents used in job-related settings.**

- Use professional-level materials, including electronic information, that match career or academic interests to make decisions.

### **Science Inquiry INQ A – E (Grades 6-8) - Question and investigating – Students revise questions so they can be answered scientifically, and then design an appropriate investigation to answer the question and carry out the study, using appropriate technologies, including computers.**

### **Science Application APPA (Grades 6-8) - People have always used technology to solve problems. Advances in human civilization are linked to advances in technology.**

- Describe how a technology has changed over time in response to societal challenges.

### **Science Application APPC (Grades 6-8) - Science and technology are interdependent. Science drives technology by demanding better instruments and suggesting ideas for new designs. Technology drives science by providing instruments and research methods.**

- Give examples to illustrate how scientists have helped solve technological problems and how engineers have aided science.

**Social Studies GLE 4.2.3 - Understands and analyzes how technology and ideas have impacted U.S. history (1776—1900).**

**Social Studies GLE 5.2.1 – Create and uses research questions that are tied to an essential question to focus inquiry on an idea, issue, or event.**

**Social Studies GLE 5.2.2 - Evaluates the logic of positions in primary and secondary sources to interpret an issue or event.**

**Social Studies GLE 5.4.2 - Uses appropriate format to cite sources within an essay or presentation.**

**Writing GLE 1.1.1 - Analyzes and selects effective strategies for generating ideas and planning writing.**

- Generates ideas prior to organizing them and adjusts prewriting strategies accordingly (e.g., free write, outline, list, T-chart for comparing).
- Maintains a log or journal (electronic or handwritten) to collect and explore ideas; records observations, dialogue, and/or description for later use as a basis for informational, persuasive, or literary writing.
- Gathers information (e.g., takes notes) from a variety of sources (e.g., Internet, interviews, multimedia, books, periodicals) and chooses an organizer to analyze, synthesize, and evaluate information to plan writing.

**Writing GLE 1.2.1 - Analyzes task and composes multiple drafts when appropriate.**

- Drafts by hand and/or on the computer.

**Writing GLE 1.3.1 - Revises text, including changes in words, sentences, paragraphs, and ideas.**

- Selects and uses effective revision tools or strategies based on project (e.g., referring to prewriting, checking sentence beginnings, combining sentences, using “cut and paste” word processing functions).
- Revises typographic devices (e.g., bullets, numbered lists) to clarify text and to meet requirements of technical writing forms (e.g., lab reports, graphs).
- Uses multiple resources to improve text (e.g., writing guides, assignment criteria, peers, adults, electronic thesaurus).

**Writing GLE 1.4.1 - Edits for conventions.**

- Uses appropriate references and resources (e.g., dictionary, writing/style guides, electronic spelling and grammar check, adults, peers).

**Writing GLE 1.5.1 - Publishes in formats that are appropriate for specific audiences and purposes.**

- Selects from a variety of publishing options keeping in mind audience and purpose (e.g., e-portfolio, newsletters, contests, school announcements, yearbook).
- Publishes using a range of graphics and illustrative material (e.g., photos, charts, graphs, tables, time lines, diagrams, cartoons).
- Publishes material in appropriate form (e.g., multimedia presentation) and format (e.g., photos, graphs, text features).

- Uses available technological resources to produce, design, and publish a professional looking final product (e.g., charts, overheads, word processor, photo software, presentation software, publishing software).

**Writing GLE 1.6.2 - Uses collaborative skills to adapt writing process.**

- Delegates parts of process to team members (e.g., one team member publishes, one edits, another presents).
- Collaborates on drafting, revising, and editing.
- Collaborates on final layout and publishing/presenting (e.g., presentation with slideshow).

**Writing GLE 1.6.3 - Uses knowledge of time constraints to adjust writing process.**

- Creates a management time line/flow chart for multi-week written projects (e.g., portfolios, research papers, I-Search papers).

**Writing GLE 2.3.1 - Uses a variety of forms/genres.**

- Produces a variety of new forms/genres, such as zines.

**Writing GLE 2.4.1 - Produces documents used in a career setting.**

- Selects and synthesizes information from technical and career documents for inclusion in writing (e.g., lab report that includes data recorded on graphs).

## Grades 9-12

### **Communications GLE 1.2.2 - Evaluates the effect of bias and persuasive techniques in mass media.**

- Compares how different perspectives interpret the same media text (e.g., different newspapers, radio/television stations, Internet sites).

### **Communications GLE 4.2.1 - Applies strategies for setting grade level appropriate goals and evaluates improvement in communication.**

- Monitors progress through the use of a variety of tools (e.g., portfolios, logs, rubrics, reflection journals, or video portfolio) and makes adjustments as needed.

### **Mathematics 1 PE M1.7.B - Find and approximate solutions to exponential equations.**

- Students can approximate solutions using graphs or tables with and without technology.

### **Mathematics 2 PE M2.2.H - Determine if a bivariate data set can be better modeled with an exponential or a quadratic function and use the model to make predictions.**

- In high school, determining a formula for a curve of best fit requires a graphing calculator or similar technological tool.

### **Mathematics 2 PE M2.3.D - Distinguish between definitions and undefined geometric terms and explain the role of definitions, undefined terms, postulates (axioms), and theorems.**

- Example: there are two definitions of trapezoid that can be found in books or on the web.

### **Algebra 1 A1.6.D - Find the equation of a linear function that best fits bivariate data that are linearly related, interpret the slope and y-intercept of the line, and use the equation to make predictions.**

- In high school, the emphasis is on using a line of best fit to interpret data and on students making judgments about whether a bivariate data set can be modeled with a linear function. Students can use various methods, including technology, to obtain a line of best fit.

### **Algebra 2 A2.6.F - Calculate and interpret measures of variability and standard deviation and use these measures and the characteristics of the normal distribution to describe and compare data sets.**

- Given formulas, students should be able to calculate the standard deviation for a small data set, but calculators ought to be used if there are very many points in the data set.

### **Algebra 2 A2.6.G - Calculate and interpret margin of error and confidence intervals for population proportions.**

- Students will use technology based on the complexity of the situation.

### **Reading GLE 2.2.2 - Apply understanding of complex organizational features of printed text and electronic sources.**

- Use the features of electronic information to communicate, gain information, or research a topic.

### **Reading GLE 2.3.2 - Evaluate informational materials, including electronic sources, for effectiveness.**

- Judge the usefulness of information based on relevance to purpose, source, objectivity, copyright date, cultural and world perspective (e.g., editorials), and support the decision.

**Reading GLE 3.1.1 - Analyze web-based and other resource materials (including primary sources and secondary sources) for relevance in answering research questions.**

- Examine materials to determine appropriate primary sources and secondary sources to use for investigating a question, topic, or issue (e.g., encyclopedia and other reference materials, pamphlets, book excerpts, newspaper and magazine articles, letters to an editor, oral records, research summaries, scientific and trade journals).

**Reading GLE 3.3.1 - Apply appropriate reading strategies for interpreting technical and non-technical documents used in job-related settings.**

- Read professional-level materials, including electronic information, that match career or academic interests and demonstrate understanding of the content.
- Select and use appropriate skills for reading a variety of documents (e.g., tables, blueprints, electronic technology manuals, bills of lading, medical charts, mechanical manuals).

**Science APPD (Grades 9-12) - The ability to solve problems is greatly enhanced by use of mathematics and information technologies.**

- Use computers, probes, and software when available to collect, display, and analyze data.

**Science APPF (Grades 9-12) - It is important for all citizens to apply science and technology to critical issues that influence society.**

- Critically analyze scientific information in current events to make personal choices, or to inform public-policy decisions.

**Social Studies GLE 2.2.1 (Grade 12) - Analyzes and evaluates the advantages and disadvantages of different economic systems for countries and groups of people.**

- Examines how global demand for technology has affected wages for technologically-skilled engineers.

**Social Studies GLE 3.1.1 – (Grades 11/12) - Analyzes information from geographic tools, including computer-based mapping systems, to draw conclusions on an issue or event.**

**Social Studies GLE 4.2.3 (Grades 9/10) - Analyzes and evaluates how technology and ideas have shaped world history (1450-present).**

**Social Studies GLE 4.2.3 (Grade 11) - Analyzes and evaluates how technology and ideas have shaped U.S. history (1890-present).**

**Social Studies GLE 4.2.3 (Grade 12) - Evaluates the ethics of current and future uses of technology based on how technology has shaped history.**

**Social Studies GLE 5.2.1 (Grades 9/10) - Creates and uses research questions that are tied to an essential question to focus inquiry on an idea, issue, or event.**

**Social Studies GLE 5.2.1 (Grade 11) - Evaluates and revises research questions to refine inquiry on an issue or event.**

**Social Studies GLE 5.2.2 (Grades 9/10) - Evaluates the validity, reliability, and credibility of sources when researching an issue or event**

**Social Studies GLE 5.2.2 (Grade 11) - Evaluates the validity, reliability, and credibility of sources when researching an issue or event.**

**Social Studies GLE 5.2.2 (Grade 12) - Evaluates the breadth of research to determine the need for new or additional investigation when researching an issue or event.**

**Social Studies GLE 5.4.2 (Grades 9/10) - Creates strategies to avoid plagiarism and respects intellectual property when developing a paper or presentation.**

**Writing GLE 1.1.1 - Analyzes and selects effective strategies for generating ideas and planning writing.**

- Gathers, analyzes, synthesizes, and organizes information from a variety of sources (e.g., interviews, websites, books, field notes).
- Maintains a log or journal (electronic or handwritten) to collect and explore ideas; records observations, dialogue, and/or description for later use as a basis for informational, persuasive, or literary writing.

**Writing GLE 1.2.1 - Analyzes task and composes multiple drafts when appropriate.**

- Drafts by hand and/or on the computer.

**Writing GLE 1.3.1 - Revises text, including changes in words, sentences, paragraphs, and ideas.**

- Selects and uses effective revision tools or strategies based on project (e.g., sentence analysis form, revision criteria checklist, “find-and- replace” or “track changes” functions of word processing program).
- Revises typographical devices (e.g., bullets, numbered lists) to clarify text and to meet requirements of technical and content-area writing forms (e.g., resumé, business letter).
- Uses multiple resources to improve text (e.g., writing guides, assignment criteria, internet grammar guide, peers, thesaurus, dictionary).

**Writing GLE 1.4.1 - Edits for conventions.**

- Uses appropriate references and resources (e.g., dictionary, writing/style guides, electronic spelling and grammar check, adults, peers).

**Writing GLE 1.5.1 - Publishes in formats that are appropriate for specific audiences and purposes.**

- Selects from a variety of publishing options keeping in mind audience and purpose (e.g., website, literary magazines, blogs, local newspaper).
- Publishes using a range of graphics and illustrative material (e.g., time lines, flow charts, political cartoons, diagrams).
- Publishes material in appropriate form (e.g., films, multimedia demonstrations, culminating project) and format (e.g., credits in film, font size, section breaks in longer document).
- Uses a variety of available technological resources (e.g., charts, overheads, word processor, photo software, presentation software) to produce, design, and publish a professional-looking final product.

**Writing GLE 1.6.2 - Uses collaborative skills to adapt writing process.**

- Collaborates on drafting, revising, and editing.
- Collaborates on final layout and publishing/presenting (e.g., yearbook, literary magazine).

**Writing GLE 1.6.3 - Uses knowledge of time constraints to adjust writing process.**

- Creates a management time line/flow chart for written projects (e.g., Thirteenth-Year Plan, exit project, oral histories).

**Writing GLE 2.3.1 - Uses a variety of forms/genres.**

- Produces a variety of new forms/genres, such as blogs.

**Writing GLE 2.4.1 - Produces documents used in a career setting.**

- Produces technical and nontechnical documents for career audiences (e.g., proposal, resumé, abstract) taking into consideration technical formats (e.g., bullets, numbering, subheadings, blank space).
- Selects and synthesizes information from technical and career documents for inclusion in writing (e.g., High School and Beyond Plan that includes information summarized from online vocational source or other informational text).