

Unit 4--Research-Based Argumentative Writing

Content Area: **English Language Arts**
Course(s): **English Language Arts**
Time Period: **Marking Period 3**
Length: **6 to 8 weeks**
Status: **Published**

Unit Overview

Similarly to the research-based projects students completed for informative writing, in this unit students will choose pro or con topics for which they will formulate a thesis supported by factual argument. Students will once again, come up with a research question. From there, they will conduct research in support of their positions and integrate their findings into an essay. A critical component of this process will involve addressing an opposing argument for any given topic. This counterpoint, or concession/denial, strategy is explicitly mentioned in the standards of the Common Core. Students will draft both handwritten pieces as well as pieces using appropriate technology.

As students use evidence to support their points, attribution becomes critical--in this unit not so much to avoid plagiarism as to add credibility to assertions. Grade 7 students will have to provide substantiation from at least three sources for this essay. This places added importance of not only reliable but authoritative sources. And, as in the informative writing unit, students will understand that sources merely provide fragmentary facts; it is up to a writer to add his or her own synthesis in order to give body and continuity to the written piece.

In this unit, students will understand that by engaging in oral debates they can learn to think more logically, to call upon evidence to support their ideas, to respond to counterarguments, and to write more effective arguments. The suggested topic of focus is on the current debate around the issue of competitive sports. How are kids hurt and helped by competitive sports? What are the invisible side effects, the pros and the cons? These are some of the possible research question students will pose early in this study. There are no easy answers for these questions, and it is also relevant to adolescents.

The ELA teachers have placed this unit fourth in a sequence of six units. Having this unit come two units after such a similar unit on informative writing allows for practice on many parallel skills during both the first and second halves of the school year--an important priority concerning the reinforcement of concepts and practices.

Standards

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| LA.L.7.1 | Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. |
| LA.L.7.1.B | Choose among simple, compound, complex, and compound-complex sentences to signal |

differing relationships among ideas.

- LA.L.7.1.C Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.
- LA.L.7.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- LA.L.7.2.A Use a comma to separate coordinate adjectives (e.g., It was a fascinating, enjoyable movie but not He wore an old[,] green shirt).
- LA.L.7.2.B Spell correctly.
- LA.L.7.3.A Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.
- LA.L.7.6 Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- LA.W.7.1.A Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically.
- LA.W.7.1.B Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
- LA.W.7.1.C Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence.
- LA.W.7.1.D Establish and maintain a formal style/academic style, approach, and form.
- LA.W.7.1.E Provide a concluding statement or section that follows from and supports the argument presented.
- LA.W.7.2.A Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using text structures (e.g., definition, classification, comparison/contrast, cause/effect, etc.) and text features (e.g., headings, graphics, and multimedia).
- LA.W.7.2.B Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
- LA.W.7.2.C Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.
- LA.W.7.2.D Use precise language and domain-specific vocabulary to inform about or explain the topic.
- LA.W.7.4 Produce clear and coherent writing in which the development, organization, voice and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
- LA.W.7.5 With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.
- LA.W.7.6 Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.
- LA.W.7.7 Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.
- LA.W.7.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.
- LA.W.7.10 Write routinely over extended time frames (time for research, reflection, metacognition/self correction, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

LA.SL.7.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.
LA.SL.7.1.B	Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.
LA.SL.7.1.D	Acknowledge new information expressed by others and, when warranted, modify their own views.
LA.SL.7.2	Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.
LA.SL.7.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.
LA.SL.7.5	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.
LA.SL.7.6	Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

Essential Questions

1. What goals should I set for myself in terms of my topic's depth, choosing the best sources for my research, and generating my own ideas and conclusions from research?
2. How do I develop a thesis statement based on my research question or topic?
3. What kinds of sources command the most respect and trust from my readers?
4. How should I organize my essay in order to support my thesis statement consistently and present information coherently?
5. Which conventions and habits define argumentative writing--and which habits should I avoid?
6. How and why should I make use of my skills, resources, peers, and teacher as my work takes shape?

How can we compose compelling evidence-based arguments to persuade an audience about urgent issues that affect us and others? As part of this work, how do we learn to gather, weigh and evaluate, and incorporate evidence to logically support our arguments, and accurately self-assess and set goals for our writing?

- **Bend I:** *How do I develop a strong position on an argument by weighing evidence carefully, testing my claim, and selecting and analyzing the strongest evidence?*
- **Bend II:** *How do I create and present a powerful, nuanced argument by honing in on subtopics, critically evaluating my sources, and using craft techniques that support my writing goals?*
- **Bend III:** *How do I strengthen my argument for a wider audience by qualifying my claim and being alert for logical fallacies before taking my work public?*

Application of Knowledge: Students will know that...

- Acknowledging an opposing argument enables a writer to undermine or discredit it.
- Arguments become more cogent when backed up with attributions to authoritative sources.
- Basic skills such as spelling, grammar, and punctuation apply to all writing.
- Clear and coherent writing illustrates development, organization, and style that are appropriate to task, purpose, and audience.
- Conferences are two-way discussions whose frank interchange of ideas facilitates good writing.
- Coordinate adjectives before a noun require commas to separate them.
- Daily practice in writing is essential for development of skills and enjoyment.
- Sources of information have potential biases and varying degrees of credibility and authority.
- The research process gains significant momentum when a researcher formulates a research question from the topic.
- Writing is a process that unfolds over time, beginning with ideas, taking refinement over several drafts, and improving with inspiration from outside texts as well as with consultations with peers and teachers.

Application of Skills: Students will be able to...

- Acknowledge an opposing argument as a first step toward dismantling it and exposing its flaws.
- Apply the basic skills of spelling, capitalization, and punctuation properly to their writing.
- Assist and receive assistance from peers in developing ideas, writing, revising, and editing.
- Back up assertions with information from credible, authoritative sources.
- Complete at least the final phase of their work using digital and cloud capabilities and produce final products in digital form.
- Evaluate the authority of a source of information and assess the source for bias.
- Find information from print and online sources.
- Include a clear introduction, an ample body, and a thorough conclusion in an essay.
- Include pertinent facts and add their own appropriate analysis and synthesis to their topics.
- Observe formal writing conventions, suiting vocabulary and tone to an academic audience.
- Participate in meaningful peer and teacher conferences, providing and evaluating advice and applying it as appropriate.
- Spell, capitalize, and punctuate correctly.
- Use a research question as the basis for investigation, research, articulation of a thesis, and composition of an essay.
- Use appropriate transitions to optimize continuity.
- Use commas to separate coordinate adjectives before a noun.
- Write on a daily basis toward the completion of an extended research-based project.

Teaching Points and Suggested Activities

The following teaching points and activities are adapted from the "The Art of Argument: Research-Based Essays" unit in *Units of Study in Argument, Information and Narrative Writing, Grades 6-8* (Calkins et al., 2014) and serve as a resource for teachers with students who demonstrate an aptitude and interest in

journalistic writing.

Teaching Points

"The Art of Argument: Research-Based Essays" *Units of Study in Argument, Information and Narrative Writing, Grade 7*. Lucy Calkins, TCRWP

Bend I: Establishing and Supporting Positions

Weighing Evidence to Form Considered Positions

- When asked to choose sides in an existing argument, a writer suspends judgment to weigh the reasons and evidence offered for each of the different sides.

Take Your Argument into a Scrimmage: Debating to Test and Strengthen a Position

- When debating, it's important to state a claim, give reasons to back up that claim, and give evidence to support each and every reason.

Bolstering Positions by Adding Relevant Evidence

- When writers add evidence to their writing, they do not just put in any piece of evidence. Instead, they sort and rank their evidence, deciding which evidence matches each point and which evidence is most compelling.

Stay with Me Now: Balancing Evidence with Analysis

- When writers are making an argument, they want their readers to stay with them. To do this, writers use analysis of the evidence to help readers follow the path of their argument.

Taking Stock

- Writers self-assess by looking back at their work to see how it might be improved, and they look forward by asking, "How can I bring all that I have learned to future writing?"

Bend II: Composing More Focused and Nuanced Arguments

Forming Coalition Groups

- Researchers begin by studying one topic or issue. They then need to crack open the topic to identify the more focused subtopic that they believe is the crux of the matter.

Bringing a Critical Perspective to Your Research

- Researchers read with a critical eye, not merely accepting what texts offer as infallible. They look for contradictions among sources, as well as the sources of those contradictions. They also pay careful attention to the perspective of the author, including the evidence the author seems to value and to

ignore.

Debating to Prepare to Draft

- Researchers gauge the argument they presented orally, determining what new evidence they must gather in preparation for writing.

Introducing and Writing Your Argument

- Argument writers have a vision for how their essay will unfold. They craft an introduction that will set them up for their piece—one that is fair, strategic, and clear.

Self-Assessment with an Eye toward Counterargument

- Writers self-assess by focusing on a skill or two and then working hard on that particular skill. One skill that argument writers sometimes choose to focus on is counterargument.

Studying Author's Craft, Including Rhetorical Devices

- Argument writers have goals that they aim toward when they write, and they utilize specific crafting techniques to accomplish those goals.

When Company Comes: Knowing When and How to Maintain a Formal Tone

- Writers match the tone and style of their writing to its purpose. When the situation and audience call for a more formal, more serious tone, writers make sure that their writing meets those expectations

Celebration: Symposium

- When they present an argument, they can learn from the responses they get and from the ideas of others and adjust their thinking accordingly.

Bend III: Taking Arguments to a Global Audience

Taking Opportunities to Stand and Be Counted

- When researchers want to make a real difference in their communities, they join or create a “cause group” of people who share their concern. They plan and divide the work within the group so that their ideas can reach a real audience and thus convince others to make a change.

Revising by Qualifying Your Claim

- Arguments are rarely all or nothing and that using qualifications helps place an argument somewhere in the middle of the spectrum, away from polar extremes.

Revising with Logical Fallacies in Mind: Evaluating Evidence

- Argument writers evaluate evidence to ensure that their own arguments are solid.

Cyberactivism

- Writers can use their argument writing skills with a global audience, using social media.

The following teaching points address the objectives of this unit, as well as the standards in the Common Core:

- Generating ideas for argumentative topics
- Developing a pro or con research question
- Credible sources and appropriate support of positions
- Types of media sources
- Developing an explicit, cogent thesis statement
- Employing compelling supporting points and substantiating them with resources
- Organizing everything into an introduction, body, and conclusion -all with transitions
- Review of writing conventions and style guidelines
- Using commas to separate coordinate adjectives before a noun
- Attribution, citation, and listing sources
- Priorities for peer conferences
- Digital and cloud resources for composing, revising, editing, and publishing

Typical Daily Activities

- Mini-lesson (connection, teaching point, modeling, active engagement, independent practice, sharing)
- Daily writing
- Conferences (between peers and with the teacher) and sharing

Critical Phases of Student Activity

- Developing topics
- Research
- Drafting
- Revising
- Editing
- Publishing

Assessments

Assessment in this unit takes three forms: diagnostic, formative, and summative. Assessment rubrics are available in Lucy Calkins's Reading and Writing Project resource kits, but teachers may also develop their own rubrics in order to include more specific elements of knowledge and skills listed in this unit summary.

Additionally, student self-assessment and peer assessment should take place whenever possible--again, in all three forms: diagnostic, formative, and summative. Removing the traditional emphasis on teacher assessment enables students to take more initiative and become self-directed.

Also, whenever possible, teacher assessment should take place in the context of a conference, or at least be followed up by a conference. This reinforces expectations, advice, assistance, and ultimately, growth.

Diagnostic Assessments

Review of student's portfolio from the previous school year, particularly persuasive and argumentative writing projects

On-demand argumentative essay (e.g. "Think of a topic or issue that you know and care about, an issue around which you have strong feelings. Tomorrow, you will have forty-five minutes to write an opinion or argument text in which you will write your opinion or claim and tell reasons why you feel that way. when you do this, draw on everything you know about essays, persuasive letters, and reviews. If you want to find and use information from a book or another outside source, you may bring that with you. Please keep in mind that you'll have forty-five minutes to complete this, so you will need to plan, draft, revise, and edit in one sitting.

In your writing, make sure you: write an introduction, state your opinion or claim, give reasons and evidence, organize your writing, acknowledge counterclaims, use transition words, and write a conclusion." - Taken from *Writing Pathways: Performance Assessments and Learning Progressions, 6-8*"

Formative Assessments (Informal)

Daily observation of students' participation and products during the active participation segment of each mini-lesson.

Students' questions, comments, suggestions to teacher

Comments, corrections, and records from peer conferences between students

Formative Assessments (Formal)

Teacher-student conferences

Summative Assessment

Summative writing will take the form of both handwritten pieces and pieces generated using appropriate

technology.

Published research-based argumentative pieces

On-demand argumentative pieces

Activities to Differentiate Instruction

The Writing Workshop framework enables students to generate research topics based on their own interests and experiences. The inherently self-directed nature of developing initial concepts requires continual reinforcement, however, at all phases of instruction during the unit.

This particular unit on research-based argumentative writing also enables students--based on interest and ability--to choose in consultation with their teachers from a range of approaches to organizing their pieces.

Struggling students may choose the more basic structures suggested by the argumentative writing guide provided by the ELA department. Teachers will encourage other students to move beyond the basic formula, providing additional exemplars. Highly imaginative students effective writers will often develop their own approaches, as they are influenced not only by exemplars provided in class but also by their own research, passion, and activism.

The active participation component of mini-lessons enables a teacher to move around and observe students at work on concepts and strategies that were presented in a whole-class format. The teacher can intervene at his or her discretion.

Likewise, a sharing component of many lessons will allow for a sampling of work from multiple students. A greater flow of ideas and products brings about a more thorough appeal to the individual dispositions and learning styles of students listening. Also, this unit will culminate in a publishing/celebrating day on which students put their individual skills and products on display.

Supplementing this, multiple exemplar texts in varying styles will broaden the appeal and accessibility of the knowledge and skills students are developing.

Due to varying dispositions and learning styles, teachers promote various strategies during all phases of the writing process. Students will have opportunities to work alone, in pairs, and in groups. They will choose either to compose in a traditional pen-on-paper mode or to compose, revise, edit, and publish digitally.

Conferences also provide a critical opportunity for students to receive individual attention and instruction. Small-group conferences with a teacher will allow for a diverse mix of ideas and advice that students can apply to their work whether it was specifically given to them or not, and the discussion is often easier to follow and takes place in closer proximity to individual students than whole-class instruction. Of course, at several stages in the writing process, the teacher will hold conferences with individual students for formative and summative purposes.

In compliance with 504 plans and IEP's, teachers will review applicable documents, consult appropriate personnel connected with special-needs students' cases, work closely with inclusion teachers and classroom aides, and communicate with parents in an effort to see to the specific needs of all students.

In some cases, most often in GATE classes, teachers may elect to have students compile their research-based informative pieces into a true publication. Such an undertaking is highly compatible with the Writer's Project unit on investigative journalism and will require many individual students to work in specialized capacities such as copy editors, section editors, editors-in-chief, and layout and design specialists. Over several instructional units, additional students will serve as archivists.

Integrated/Cross-Disciplinary Instruction

Consistent with the concept of differentiated instruction, students should learn the knowledge and skills of this unit in conjunction with concepts from various content areas. The topics and research questions for argumentative writing span far beyond the middle school curriculum. Here are some possible research questions for argumentative writing and the content areas to which they apply:

- Do Roman numerals put mathematicians at a disadvantage? (mathematics)
- Should the United States have entered the Vietnam War? (social studies)
- Is rock and roll a true art form? (social studies, music)
- Should NASA receive so much government funding when we have so many homeless people? (science, social studies)
- Should schools restrict certain foods from their cafeterias? (health/PE, social studies)

While some teachers will provide instruction that includes specific concepts from various content areas, all should direct students to specific text and online resources pertinent to various content areas. Also, teachers will consult grade-level content area teachers on concepts covered in their classes, allowing subjects, lessons, and experiences to reinforce each other.

Suggested Mentor Texts and Other Resources

Mentor Texts:

Sample essay from the GBMS Argumentative Writing Guide

Sample essays from the "The Art of Argument: Research-Based Essays" unit of study from the Reading and Writing Project

Text sets can be developed by students and teachers to contain a wide variety of links to articles from which he or she can choose a smart path of reading: excerpts from books, news articles, student blogs, etc. Teachers can also refer to Text Set and other resources on the CD-ROM.

Competitive Sports Text Set

These pop culture text sets attempt to represent not just a topic, but an issue within that topic, and sides of that issue. The text sets present multiple perspectives on an issue—as well as multiple levels of texts and multiple modalities. Some articles may need to be adapted for lower level readers. Please keep in mind that websites are temporal.

- Pushing too hard too young: Take away the fun factor in sports and kids can burn out: http://www.nbcnews.com/id/4556235/#.Upteg5E0_ol
- Listening to Wisdom From a 10-year-old son about his head injury: <http://www.nytimes.com/2009/11/29/sports/football/29cohen.html#>
- Why I Don't Want My Kids to Play Team Sports: <http://m.us.wsj.com/articles/BL-SEB-78042>
- Sports: The Benefits of Competitive Athletic Sports Participation in Today's Sports Climate: <http://www.chicagonow.com/the-athletes-sports-experience-making-a-difference/2012/10/sports-the-benefitsof-competitive-athletic-sports-participation-in-todays-sports-climate/>
- What are the benefits of competitive sports for youth?: <http://www.livestrong.com/article/134568-what-are-benefits-competitive-sportsyouth/>
- Sports Promote Healthy Weight in Teenagers: http://well.blogs.nytimes.com/2012/07/17/sports-promote-healthy-weight-in-teenagers/?_r=0
- High Cost of Youth Sports: http://www.huffingtonpost.com/visualnewscom/high-cost-of-youthsports_b_3469012.html
- Katie Couric's Notebook: Kids and Sports: http://www.cbsnews.com/video/watch/?id=3683084nG7B3_CD.indd

Additional Texts on Competitive Sports

- Hey, data data—swing!: http://espn.go.com/espn/story/_/id/9469252/hidden-demographics-youth-sports-espn-magazine
- Pros and Cons of Sports Competition at High School Level: <http://www.publicschoolreview.com/articles/67>
- Until It Hurts: America's Obsession with Youth Sports and How It Harms Our Kids By Mark Hyman
- Why Johnny Hates Sports: Why Organized Youth Sports Are Failing Our Children By Fred Engh

- Playing to Win: Raising Children in a Competitive Culture By Hilary Levey Friedman

Injuries

- Seeds of Innovation: Bringing a Game Changing-Helmet to Market: <http://news.riddell.com/backgrounders/seeds-of-innovation:-bringing-a-game-changing-helmet-to-market>
- Study: No Helmet Brand Can Save Football Players from Concussion Risk: <http://www.latimes.com/science/sciencenow/la-sci-sn-concussion-high-schoolfootball-helmet-mouthguards-20131028,0,7936827.story#axzz2mpoMHfw8>
- Post-concussion return to learning also a tough decision: <http://www.latimes.com/science/sciencenow/la-sci-concussion-kidsschool-20131028,0,735895.story#axzz2mpoMHfw8>
- Sports Injury Statistics: <http://www.lpch.org/DiseaseHealthInfo/HealthLibrary/orthopaedics/stats.html>

Pay to Play

- High Cost of Youth Sports: http://www.huffingtonpost.com/visualnewscom/high-cost-of-youthsports_b_3469012.html
- Will 'Pay to play' Become a Permanent Part of School Sports?: <http://www.forbes.com/sites/bobcook/2012/08/22/will-pay-to-play-become-a-permanent-part-of-school-sports/>

Tryouts

- Cutting in Sports: <https://www.competitivedge.com/cutting-sports>
- Getting Cut From a Sports Team: Ten Reasons to Re-Examine Cuts Below High School Varsity: <http://www.momsteam.com/health-safety/emotional-injuries/cut-from-sports-team/re-examine-cuts-below-high-school-varsity?page=0%2C0>
- How Can Coaches Handle Tryouts and Cuts?: <http://www.positivecoach.org/our-tools/ask-pca/ask-pca-question/?id=116>

Pressure

- The Case Against Competition: <http://www.alfiekohn.org/parenting/tcac.htm>
- For Children in Sports, a Breaking Point: http://www.nytimes.com/2010/05/25/health/25brod.html?_r=1&
- For children, pressure vs. fun in sports is balancing act: <http://news.medill.northwestern.edu/chicago/news.aspx?id=199731>
- Facts for Families: Children and Sports: http://www.aacap.org/App_Themes/AACAP/docs/facts_for_families/61_children_and_sports.pdf

Resources:

"Argumentative Writing Guide." GBMS ELA Department.

MLA Handbook for Writers of Research Papers. Modern Language Association, 2009.

MLA website (www.mla.org)

Purdue University Online Writing Lab (owl.english.purdue.edu)

"Style Guidelines for Formal Essays." A resource composed by GBMS ELA teachers and distributed to students.

Units of Study in Opinion, Information, and Narrative Writing:

- "The Art of Argument: Research-Based Essays" *Units of Study in Argument, Information and Narrative Writing, Grade 7*. Lucy Calkins, TCRWP
- *A Guide to the Common Core Writing Workshop, Intermediate Grades*. Lucy Calkins, TCRWP
- *Writing Pathways, Grades K-8, Performance Assessments and Learning Progressions*. Lucy Calkins, TCRWP
- *If...Then... Curriculum, Grade 7 (Assessment-Based Instruction)*. Lucy Calkins, TCRWP
- *Resources for Teaching Writing (DVD)*. Lucy Calkins, TCRWP

21st Century Skills

CRP.K-12.CRP2.1	Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation.
CRP.K-12.CRP4.1	Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others' time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome.
CRP.K-12.CRP11.1	Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of

technology applications, and they take actions to prevent or mitigate these risks.