

Introduction to Computers and IT Correlation to: ***California: Grade 8 English-Language Arts, Math, and Science Content Standards***

Instructional Content Areas (Units)

IT Introduction Unit

Computer Research

Multimedia Presentations

Telecommunications and Ethics

IT In Our Lives

Information Management and Evaluation

Desktop Publishing

IT History

Word Processing

Basic Computer Functions

Computer Graphics

IT Careers

Spreadsheets

Troubleshooting and Maintenance

Databases

Web Publishing



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Overview

This document demonstrates the correlation between the ITcenter21 curriculum supplied by Applied Educational Systems and the *California Grade 8 English-Language Arts, Math, and Science Content Standards*, published by the California Department of Education. The ITcenter21 (IT21) units are listed across the top row. The checkmarks in the second column indicate that the standard is covered as part of the IT21 course. The X's marked in the remaining columns show where the standard is covered in the IT21 curriculum.

Source for standards listed on the following pages:

California Grade 8 English-Language Arts Content Standards
California Department of Education
<http://www.cde.ca.gov/standards/reading/grade8.html>

Grade Eight English-Language Arts Content Standards	ITcenter21 Course	IT Introduction Unit	Computer Research	Multimedia Presentations	Telecommun. & Ethics	IT In Our Lives	Info. Mgmt & Evaluation	Desktop Publishing	IT History	Word processing	Basic Comp. Func.	Computer Graphics	IT Careers	Spreadsheets	Troubleshooting	Databases	Web Publishing
	READING																
1.3 Use word meanings within the appropriate context and show ability to verify those meanings by definition, restatement, example, comparison, or contrast.	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.1 Compare and contrast the features and elements of consumer materials to gain meaning from documents (e.g., warranties, contracts, product information, instruction manuals).	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.2 Analyze text that uses proposition and support patterns.	✓	X	X	X	X		X	X		X		X		X		X	X
2.5 Understand and explain the use of a complex mechanical device by following technical directions.	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.6 Use information from a variety of consumer, workplace, and public documents to explain a situation or decision and to solve a problem.	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.7 Evaluate the unity, coherence, logic, internal consistency, and structural patterns of text.	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.1 Determine and articulate the relationship between the purposes and characteristics of different forms of poetry (e.g., ballad, lyric, couplet, epic, elegy, ode, sonnet).	✓			X		X											
3.6 Identify significant literary devices (e.g., metaphor, symbolism, dialect, irony) that define a writer's style and use those elements to interpret the work.	✓			X			X										
3.7 Analyze a work of literature, showing how it reflects the heritage, traditions, attitudes, and beliefs of its author. (Biographical approach)	✓						X										
WRITING																	
1.1 Create compositions that establish a controlling impression, have a coherent thesis, and end with a clear and well-supported conclusion.	✓			X													
1.2 Establish coherence within and among paragraphs through effective transitions, parallel structures, and similar writing techniques.	✓						X		X								
1.6 Revise writing for word choice; appropriate organization; consistent point of view; and transitions between paragraphs, passages, and ideas.	✓			X	X		X			X		X					
2.1 Write biographies, autobiographies, short stories, or narratives:	✓									X							
2.1a. Relate a clear, coherent incident, event, or situation by using well-chosen details.	✓			X						X							
2.1c. Employ narrative and descriptive strategies (e.g., relevant dialogue, specific action, physical description, background description, comparison or contrast of characters).	✓			X						X							

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	2.2 Write responses to literature:	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.2a. Exhibit careful reading and insight in their interpretations.	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.2b. Connect the student's own responses to the writer's techniques and to specific textual references.	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.2c. Draw supported inferences about the effects of a literary work on its audience.	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.3b. Record important ideas, concepts, and direct quotations from significant information sources and paraphrase and summarize all perspectives on the topic, as appropriate.	✓		X	X		X			X	X			X				
2.3c. Use a variety of primary and secondary sources and distinguish the nature and value of each.	✓		X			X			X	X			X				
2.3d. Organize and display information on charts, maps, and graphs.	✓		X	X		X			X				X			X	
2.4 Write persuasive compositions:	✓			X										X			
2.4a. Include a well-defined thesis (i.e., one that makes a clear and knowledgeable judgment).	✓			X													
2.4c. Provide details, reasons, and examples, arranging them effectively by anticipating and answering reader concerns and counterarguments.	✓			X	X	X	X	X	X	X			X	X			X
2.5 Write documents related to career development, including simple business letters and job applications:	✓													X			
2.5a. Present information purposefully and succinctly and meet the needs of the intended audience.	✓			X	X	X	X	X	X	X			X	X			X
2.5b. Follow the conventional format for the type of document (e.g., letter of inquiry, memorandum).	✓			X	X	X	X	X	X	X		X	X	X			X
2.6a. Identify the sequence of activities needed to design a system, operate a tool, or explain the bylaws of an organization.	✓			X	X												
2.6c. Use formatting techniques (e.g., headings, differing fonts) to aid comprehension.	✓			X	X	X	X	X	X	X		X	X	X			X
Written and Oral English Language Conventions																	
1.1 Use correct and varied sentence types and sentence openings to present a lively and effective personal style.	✓				X									X			X
1.4 Edit written manuscripts to ensure that correct grammar is used.	✓			X	X	X	X	X	X	X			X	X			X

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	1.5 Use correct punctuation and capitalization.	✓				X	X	X		X	X			X			
1.6 Use correct spelling conventions.	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Listening and Speaking																	
1.1 Analyze oral interpretations of literature, including language choice and delivery, and the effect of the interpretations on the listener.	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1.2 Paraphrase a speaker's purpose and point of view and ask relevant questions concerning the speaker's content, delivery, and purpose.	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1.3 Organize information to achieve particular purposes by matching the message, vocabulary, voice modulation, expression, and tone to the audience and purpose.	✓				X	X		X	X				X				X
1.4 Prepare a speech outline based upon a chosen pattern of organization, which generally includes an introduction; transitions, previews, and summaries; a logically developed body; and an effective conclusion.	✓			X													
1.5 Use precise language, action verbs, sensory details, appropriate and colorful modifiers, and the active rather than the passive voice in ways that enliven oral presentations.	✓					X			X				X				
1.6 Use appropriate grammar, word choice, enunciation, and pace during formal presentations.	✓					X			X				X				
1.6a. Reconsider and modify the organizational structure or plan.	✓			X	X		X			X		X					
1.6b. Rearrange words and sentences to clarify the meaning.	✓			X	X		X			X		X					
1.8 Evaluate the credibility of a speaker (e.g., hidden agendas, slanted or biased material).	✓					X			X				X				
1.9 Interpret and evaluate the various ways in which visual image makers (e.g., graphic artists, illustrators, news photographers) communicate information and affect impressions and opinions.	✓			X			X	X				X					X
2.1 Deliver narrative presentations (e.g., biographical, autobiographical):	✓					X			X				X				
2.1a. Relate a clear, coherent incident, event, or situation by using well-chosen details.	✓			X						X							
2.1c. Employ narrative and descriptive strategies (e.g., relevant dialogue, specific action, physical description, background description, comparison or contrast of characters).	✓			X						X							
2.2 Deliver oral responses to literature:	✓					X			X				X				

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2.2a. Interpret a reading and provide insight.	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.3 Deliver research presentations:	✓					X			X				X				
2.3c. Use a variety of primary and secondary sources and distinguish the nature and value of each.	✓		X			X			X	X			X				
2.3d. Organize and record information on charts, maps, and graphs.	✓					X											
2.4 Deliver persuasive presentations:	✓					X			X				X				
2.4a. Include a well-defined thesis (i.e., one that makes a clear and knowledgeable judgment).	✓			X													
2.4c. Anticipate and answer listener concerns and counterarguments effectively through the inclusion and arrangement of details, reasons, examples, and other elements.	✓			X	X	X	X	X	X	X			X	X			X
2.4d. Maintain a reasonable tone.	✓				X			X									X
2.5 Recite poems (of four to six stanzas), sections of speeches, or dramatic soliloquies, using voice modulation, tone, and gestures expressively to enhance the meaning.	✓					X			X				X				

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	Number Sense																
1.2 Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers.	✓													X			
1.3 Convert fractions to decimals and percents and use these representations in estimations, computations, and applications.	✓	X	X	X	X		X	X		X		X		X		X	X
1.5 Know that every rational number is either a terminating or repeating decimal and be able to convert terminating decimals into reduced fractions.	✓													X			
1.7 Solve problems that involve discounts, markups, commissions, and profit and compute simple and compound interest.	✓	X	X	X	X		X	X		X		X		X		X	X
2.2 Add and subtract fractions by using factoring to find common denominators.	✓													X			
Algebra and Functions																	
3.4 Plot the values of quantities whose ratios are always the same (e.g., cost to the number of an item, feet to inches, circumference to diameter of a circle). Fit a line to the plot and understand that the slope of the line equals the quantities.	✓		X	X	X		X	X		X		X		X		X	X
4.2 Solve multistep problems involving rate, average speed, distance, and time or a direct variation.	✓						X			X		X		X			
Measurement and Geometry																	
2.1 Use formulas routinely for finding the perimeter and area of basic two-dimensional figures and the surface area and volume of basic three-dimensional figures, including rectangles, parallelograms, trapezoids, squares, triangles, circles, prisms, and cylinders.	✓						X			X		X		X			
2.2 Estimate and compute the area of more complex or irregular two-and three-dimensional figures by breaking the figures down into more basic geometric objects.	✓						X			X		X		X			
2.3 Compute the length of the perimeter, the surface area of the faces, and the volume of a three-dimensional object built from rectangular solids. Understand that when the lengths of all dimensions are multiplied by a scale factor, the surface area is multiplied by the square of the scale factor and the volume is multiplied by the cube of the scale factor.	✓						X			X		X		X			

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Statistics, Data Analysis, and Probability																	
1.1 Know various forms of display for data sets, including a stem-and-leaf plot or box-and-whisker plot; use the forms to display a single set of data or to compare two sets of data.	✓		X	X	X		X	X		X		X		X		X	X
1.2 Represent two numerical variables on a scatterplot and informally describe how the data points are distributed and any apparent relationship that exists between the two variables (e.g., between time spent on homework and grade level).	✓		X	X	X		X	X		X		X		X		X	X
1.3 Understand the meaning of, and be able to compute, the minimum, the lower quartile, the median, the upper quartile, and the maximum of a data set.	✓		X	X	X		X	X		X		X		X		X	X
Mathematical Reasoning																	
1.1 Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, identifying missing information, sequencing and prioritizing information, and observing patterns.	✓		X	X	X		X	X		X		X		X	X	X	X
1.2 Formulate and justify mathematical conjectures based on a general description of the mathematical question or problem posed.	✓		X	X	X	X	X	X	X			X	X	X	X	X	X
1.3 Determine when and how to break a problem into simpler parts.	✓		X	X	X										X		
2.1 Use estimation to verify the reasonableness of calculated results.	✓		X	X	X	X	X	X	X	X		X	X	X	X	X	X
2.2 Apply strategies and results from simpler problems to more complex problems.	✓		X	X	X										X		
2.4 Make and test conjectures by using both inductive and deductive reasoning.	✓		X	X	X		X	X		X		X		X	X	X	X
2.5 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.	✓		X	X	X	X	X	X	X	X		X	X	X	X	X	X
2.6 Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.	✓		X	X	X	X	X	X	X	X		X	X	X	X	X	X
2.7 Indicate the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy.												X					
3.1 Evaluate the reasonableness of the solution in the context of the original situation.	✓		X	X	X	X	X		X				X		X		
3.2 Note the method of deriving the solution and demonstrate a conceptual understanding of the derivation by solving similar problems.	✓		X	X	X										X		
3.3 Develop generalizations of the results obtained and the strategies used and apply them to new problem situations.	✓		X	X	X									X	X		

<p style="text-align: center;">Grade Eight Science - Content Standards</p>	ITcenter21 Course	IT Introduction Unit	Computer Research	Multimedia Presentations	Telecommun. & Ethics	IT In Our Lives	Info. Mgmt & Evaluation	Desktop Publishing	IT History	Word processing	Basic Comp. Func.	Computer Graphics	IT Careers	Spreadsheets	Troubleshooting	Databases	Web Publishing
<p>Focus on Physical Science</p>																	
<p>1c. <i>Students know</i> how to solve problems involving distance, time, and average speed.</p>	✓													X			
<p>8b. <i>Students know</i> how to calculate the density of substances (regular and irregular solids and liquids) from measurements of mass and volume.</p>	✓													X			
<p>Investigation and Experimentation</p>																	
<p>9d. Recognize the slope of the linear graph as the constant in the relationship $y = kx$ and apply this principle in interpreting graphs constructed from data.</p>	✓													X			
<p>9e. Construct appropriate graphs from data and develop quantitative statements about the relationships between variables.</p>	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<p>9f. Apply simple mathematic relationships to determine a missing quantity in a mathematic expression, given the two remaining terms (including speed = distance/time, density = mass/volume, force = pressure x area, volume = area x height).</p>	✓													X			