

**Florida Teacher Certification Examinations
Test Information Guide
for
General Knowledge Test**



FLORIDA DEPARTMENT OF EDUCATION
www.fdoe.org

Third Edition

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Test and Test Information Guide Development

Teacher Certification Testing

Since 1980, Florida teacher certification candidates have been required to pass the Florida Teacher Certification Examinations (FTCE), which consisted of tests in reading, writing, mathematics, and professional knowledge. The 1986 Florida Legislature modified the testing program by also requiring teacher candidates to pass a test in the subject area in which they wish to be certified. In addition, the Legislature substituted the Florida College-Level Academic Skills Test (CLAST) for the reading, writing, and mathematics portions of the FTCE. The 2000 Florida Legislature replaced the CLAST with the General Knowledge Test, effective July 1, 2002.

The subject area knowledge tested on the General Knowledge Test examination was identified and validated by committees of content specialists from within the state of Florida. Committee members included public school teachers, district supervisors, and college faculty with expertise in this field. Committee members were selected on the basis of recommendations by district superintendents, public school principals, deans of education, experts in the field, and other organizations. In developing the test, the committees used an extensive literature review, interviews with selected public school teachers, a large-scale survey of teachers, pilot tests, and their own professional judgment.

Role of the Test Information Guide

The purpose of this test information guide is to help candidates taking the General Knowledge test prepare effectively for the examination. The guide was designed to familiarize prospective test takers with various aspects of the examination, including the content that is covered and the way it is represented. The guide should enable candidates to direct their study and to focus on relevant material for review.

This test information guide is intended primarily for use by certification candidates, who may be students in a college or university educator preparation program or persons making a career change. Candidates may have studied and worked in Florida or may be from out of state.

College or university faculty may also use the guide to prepare students for certification, and inservice trainers may find the guide useful for helping previously certified teachers prepare for recertification or multiple certification.

This test information guide is not intended as an all-inclusive source of subject area knowledge, nor is it a substitute for college course work in the subject area. The sample questions are representative of the content of the actual test; however, they are not actual test questions from an actual test form. Instead, the guide is intended to help candidates prepare for the subject area test by presenting an overview of the content and format of the examination.



Preparation for the Test

The following outline may help you prepare for the examination. Adapt these suggestions to suit your own study habits and the time you have available for review.

Overview

- **Look over the organization of the test information guide.**

Section 1 discusses the development of the test and test information guide.

Section 2 (this section) outlines test preparation steps.

Section 3 offers strategies for taking the test.

Section 4 presents information about the content and structure of the test.

Section 5 lists question formats and includes sample test questions.

Section 6 provides an annotated bibliography of general references you may find useful in your review.

Section 7 identifies a source of further information.

Self-Assessment

- **Decide which content areas you should review.**

Section 4 includes the competencies and skills used to develop this subject area test and the approximate proportion of test questions from each competency area.

Review

- **Study according to your needs.**

Review all of the competencies and concentrate on areas with which you are least familiar.

Practice

- **Acquaint yourself with the format of the examination.**

Section 5 describes types of questions you may find on the examination.

- **Answer sample test questions.**

Section 5 gives you an opportunity to test yourself with sample test questions and provides an answer key and information regarding the competency to which each question is linked.

Final preparation

- **Review test-taking advice.**

Section 3 includes suggestions for improving your performance on the examination.

- **Refer to field-specific references.**

Section 6 includes an annotated bibliography listing general references keyed to the competencies and skills used to develop this subject area test.



Test-Taking Advice

- Go into the examination prepared, alert, and well rested.
- Complete your travel arrangements prior to the examination date. Plan to arrive early so that you can locate the parking facilities and examination room without rushing.
- Dress comfortably and bring a sweater or jacket in case the room is too cool for your comfort.
- Take the following with you to the test site:
 - Admission ticket
 - Proper identification as described in "Identification Policy"
- There are many strategies for taking a test and different techniques for dealing with different types of questions. Nevertheless, you may find the following general suggestions useful.
 - Read each question and all the response options carefully before selecting your answer. Pay attention to all of the details.
 - Go through the entire test once and answer all the questions you are reasonably certain about. Then go back and work through the questions that require more thought.
 - When you are not certain of the correct answer, eliminate as many options as you can and choose the response that seems best. It is to your advantage to answer all the questions on the test, even if you are uncertain about some of your choices.
 - After completing the examination, go back and check every question. Verify that you have answered all of the questions and that your responses are correctly entered. For examinations with multiple subtests or sections (such as General Knowledge, FELE, English 6–12, German K–12, Middle Grades English 5–9, and Speech 6–12), you will only be able to review items within that subtest or section. Once you complete a subtest or section, you will not be able to return to that section of the test. You will be alerted to this during testing.

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Competencies and Skills and Test Blueprint

The table on the following pages lists the competencies and skills used as the basis for the General Knowledge Test. These competencies and skills represent the knowledge that teams of teachers, subject area specialists, and district-level educators have determined to be important for beginning teachers. This table can serve as a checklist for assessing your familiarity with each of the areas covered by the test. The competencies and skills should help you organize your review. The test blueprint indicates the approximate percentage of test questions that will cover each specific competency on the exam.

Competencies are broad areas of content knowledge.

Skills identify specific behaviors that demonstrate the competencies.

Percentages indicate the approximate proportion of test questions that represent the competencies on the test.

The following excerpt illustrates the components of the table.

*Approximate percentage of total test questions
(test blueprint)*

Competency

Competency/Skill	Approx. %
ENGLISH LANGUAGE SKILLS	
1 Knowledge of language structure	25%
1 Evaluate correct placement of modifiers. 2 Apply knowledge of parallelism, including parallel expressions for parallel ideas. 3 Apply knowledge of a variety of effective structures (e.g., recognizing fragments, comma splices, run-on sentences, syntax errors). 4 Determine patterns of organization in a written passage (i.e., modes of rhetoric).	

Skills 1–4

Table of Competencies, Skills, and Approximate Percentages of Questions

Competency/Skill	Approx. %
ENGLISH LANGUAGE SKILLS	
1 Knowledge of language structure	25%
<ul style="list-style-type: none"> 1 Evaluate correct placement of modifiers. 2 Apply knowledge of parallelism, including parallel expressions for parallel ideas. 3 Apply knowledge of a variety of effective structures (e.g., recognizing fragments, comma splices, run-on sentences, syntax errors). 4 Determine patterns of organization in a written passage (i.e., modes of rhetoric). 	
2 Knowledge of vocabulary application	25%
<ul style="list-style-type: none"> 1 Determine the meaning of unknown words, multiple-meaning words, and phrases in context. 2 Determine and select the correct use of commonly confused words, misused words, and phrases. 3 Determine diction and tone appropriate to a given audience. 	
3 Knowledge of standard English conventions	50%
<ul style="list-style-type: none"> 1 Determine and select standard verb forms. 2 Determine and select inappropriate shifts in verb tense. 3 Determine and select agreement between subject and verb. 4 Determine and select agreement between pronoun and antecedent. 5 Determine and select inappropriate pronoun shifts. 6 Determine and select clear pronoun references. 7 Determine and select pronoun case forms (e.g., subjective, objective, possessive). 8 Evaluate the correct use of adjectives and adverbs. 9 Determine and select appropriate comparative and superlative degree forms. 10 Demonstrate command of standard spelling conventions. 11 Demonstrate command of standard punctuation. 12 Demonstrate command of standard capitalization. 	

Competency/Skill	Approx. %
<p>MATHEMATICS</p> <p>The test center will provide a 4-function calculator.</p> <p>The test center will provide a reference sheet.</p>	
<p>1 Knowledge of number sense, concepts, and operations</p>	<p>17%</p>
<p>1 Compare real numbers and identify their location on a number line.</p> <p>2 Solve real-world problems involving the four operations with rational numbers.</p> <p>3 Evaluate expressions involving order of operations.</p>	
<p>2 Knowledge of geometry and measurement</p>	<p>21%</p>
<p>1 Identify and classify simple two- and three-dimensional figures according to their mathematical properties.</p> <p>2 Solve problems involving ratio and proportion (e.g., scaled drawings, models, real-world scenarios).</p> <p>3 Determine an appropriate measurement unit and form (e.g., scientific notation) for real-world problems involving length, area, volume, or mass.</p> <p>4 Solve real-world measurement problems including fundamental units (e.g., length, mass, time), derived units (e.g., miles per hour, dollars per gallon), and unit conversions.</p>	

Competency/Skill	Approx. %
3 Knowledge of algebraic thinking and the coordinate plane	29%
<ol style="list-style-type: none"> 1 Determine whether two algebraic expressions are equivalent by applying properties of operations or equality. 2 Identify an algebraic expression, equation, or inequality that models a real-world situation. 3 Solve equations and inequalities (e.g., linear, quadratic) graphically or algebraically. 4 Determine and solve equations or inequalities, graphically or algebraically, in real-world problems. 5 Graph and interpret a linear equation in real-world problems (e.g., use data to plot points, explain slope and y-intercept, determine additional solutions). 6 Identify relations that satisfy the definition of a function. 7 Compare the slopes of two linear functions represented algebraically and graphically. 	
4 Knowledge of probability, statistics, and data interpretation	33%
<ol style="list-style-type: none"> 1 Analyze data presented in various forms (e.g., histograms, bar graphs, circle graphs, pictographs, line plots, tables) to solve problems. 2 Analyze and evaluate how the presentation of data can lead to different or inappropriate interpretations in the context of a real-world situation. 3 Calculate range, mean, median, and mode of data sets. 4 Interpret the meaning of measures of central tendency (i.e., mean, median, mode) and dispersion (i.e., range, standard deviation) in the context of a real-world situation. 5 Analyze and evaluate how the selection of statistics (e.g., mean, median, mode) can lead to different or inappropriate interpretations in the context of a real-world situation. 6 Solve and interpret real-world problems involving probability using counting procedures, tables, and tree diagrams. 7 Infer and analyze conclusions from sample surveys, experiments, and observational studies. 	

Competency/Skill	Approx. %
<p>READING</p> <p>All items are passage based. The passages will be both expository and narrative. Each test form will contain approximately five passages.</p>	
<p>1 Knowledge of key ideas and details based on text selections</p>	<p>40%</p>
<p>1 Identify textual evidence to support conclusions drawn from text.</p> <p>2 Identify explicit meaning and details within text.</p> <p>3 Determine inferences and conclusions based on textual evidence.</p> <p>4 Discriminate among inferences, conclusions, and assumptions based on textual evidence.</p> <p>5 Determine and analyze the development of central ideas or themes from one or more texts.</p> <p>6 Summarize one or more texts using key supporting ideas and details.</p> <p>7 Determine how and why specific individuals, events, and ideas develop based on textual evidence.</p> <p>8 Determine the cause and effect relationship(s) among individuals, events, and ideas based on textual evidence.</p>	
<p>2 Knowledge of craft and structure based on text selections</p>	<p>25%</p>
<p>1 Interpret the meaning of words and phrases as used in text (e.g., figurative language, connotative language, technical meanings).</p> <p>2 Analyze how specific word choices shape meaning or tone.</p> <p>3 Analyze how the author uses organization and text structure(s) to convey meaning.</p> <p>4 Contrast the point of view of two or more authors on the same topic by analyzing their claims, reasoning, and evidence.</p> <p>5 Analyze how point of view and purpose shape the content and style of text.</p>	

Competency/Skill	Approx. %
3 Knowledge of the integration of information and ideas based on text selections	35%
1 Evaluate and relate content presented in diverse formats. 2 Evaluate specific claims in text based on relevancy, sufficiency, and validity or reasoning. 3 Synthesize information from a range of texts to develop a coherent explanation of a process, phenomenon, concept, or theme. 4 Analyze multiple texts to differentiate approaches authors take to develop similar themes (e.g., mode, author's craft, genre, point of view).	

Table of Essay Skills

Competency/Skill
<p>ESSAY SKILLS</p> <ul style="list-style-type: none">• Determine the purpose of writing to task and audience.• Provide a section that effectively introduces the topic.• Formulate a relevant thesis or claim.• Organize ideas and details effectively.• Provide adequate, relevant support by citing ample textual evidence; response may also include anecdotal experience for added support.• Use of a variety of transitional devices effectively throughout and within a written text.• Demonstrate proficient use of college-level, standard written English (e.g., varied word choice, syntax, language conventions, semantics).• Provide a concluding statement or section that follows from, or supports, the argument or information presented.• Use a variety of sentence patterns effectively.• Maintain consistent point of view.• Apply the conventions of standard English (e.g., avoid inappropriate use of slang, jargon, clichés).



Test Format and Sample Questions

The General Knowledge Test consists of four subtests: English Language Skills, Mathematics, Reading, and Essay. You will have 50 minutes to complete your essay and three hours and fifteen minutes to complete the three multiple-choice sections.

The Essay

For your essay, you will choose between two topics. The 50 minutes allotted for this section of the exam includes time to prepare, write, and edit your essay.

Your work will be scored holistically by two raters. The personal views you express will not be an issue; however, the skill with which you express those views, the logic of your arguments, and the degree to which you support your position will be very important in the scoring.

Your essay will be scored both on substance and on the composition skills demonstrated, including the following elements: ideas, focus, organization, style (diction and sentence structure), and mechanics (capitalization, punctuation, spelling, and usage).

The raters will use the categories on page 14 when evaluating your essay. The score you receive for your essay will be the combined total of the two raters' scores.

Multiple-Choice Subtests

The English Language Skills subtest is 40 minutes long and consists of approximately 40 multiple-choice questions. The Reading subtest is 55 minutes long and consists of approximately 40 multiple-choice questions. The Mathematics Subtest consists of approximately 45 multiple-choice questions and is 100 minutes long.

Each of the questions in the second part of the exam will contain three or four response options. You will choose the best response out of the available options, and indicate **A**, **B**, **C**, or **D**. For the Mathematics Subtest, the test center will provide a 4-function calculator and a mathematics reference sheet. The table on page 15 presents types of questions on the exam and directs you to examples of these formats among the sample items that follow.

GENERAL KNOWLEDGE TEST – ESSAY WRITING

GENERAL STRATEGIES FOR WRITING THE ESSAY FOR THE GENERAL KNOWLEDGE TEST

1. **Watch the time.** Take a few minutes at the beginning of the period to plan your essay and at the end to proofread or revise your work. Use *all* the time wisely. You should not run out of time before you are done; nor should you write an incomplete essay because you did not use all the time allowed. NOTE: You do not have time to write a rough draft and then completely rewrite it. Spend your time writing and editing your final essay.
2. **Read the instructions carefully and select one of the topics.** Determine what the topic is asking. Think of how the topic relates to what you know, what you have learned, and what experiences you have had, so you can provide concrete details rather than vague generalities.
3. **Take a few minutes to prewrite.** Jot down your first ideas (some you may like; others you may discard). Sketch a quick outline or group your ideas together with arrows or numbers. Begin to "see" your essay taking shape—even before you start writing.
4. **Write a thesis statement that provides a clear focus for your essay.** State a point of view in your thesis that guides the purpose and scope of your essay. Consider the larger point you are trying to convey to the reader and what you want the reader to understand about the topic. Avoid a thesis statement framed as a statement of fact, a question, or an announcement.
5. **Develop the essay according to your purpose.** Develop paragraphs fully to give the reader examples and reasons that support your thesis. Note that a good essay for the General Knowledge Test may be longer or shorter than the basic five-paragraph format of some short essays. Do not limit yourself to an arbitrary length. The key is to develop a topic by using concrete, informative details.
6. **Tie your main ideas together with a brief conclusion.** Provide a concluding paragraph that ties together the essay's points and offers insights about the topic. Avoid a conclusion that merely restates the thesis and repeats the supporting details. Check your time. If the writing period is almost over, wrap up quickly, so you can proofread or revise.
7. **Revise/proofread the essay to conform to standard American English.** Look for particular errors *you* tend to make. Read the essay from the last sentence to the first and make corrections. Look for words, sentences, or even paragraphs that need changing.

SCORING CRITERIA FOR THE GENERAL KNOWLEDGE ESSAY

- SCORE of 6** **The 6 essay is notably effective.**
- The main idea is clearly established and fully developed with specific details and examples.
 - Organization is notably logical and coherent.
 - Focus is consistently maintained.
 - Vocabulary and sentence structure are varied and effective.
 - Errors in sentence structure, usage, and mechanics are few and insignificant.
- SCORE of 5** **The 5 essay is mostly effective.**
- The main idea is established and mostly developed with specific details and examples.
 - Organization is mostly logical and coherent.
 - Focus is mostly maintained.
 - Vocabulary and sentence structure are mostly varied and effective.
 - Errors in sentence structure, usage, and mechanics are few and mostly insignificant.
- SCORE of 4** **The 4 essay is adequate.**
- The main idea is stated and adequately developed with some specific details and examples.
 - Organization is adequately logical.
 - Focus is adequately maintained.
 - Vocabulary and sentence structure are somewhat varied and effective.
 - Errors in sentence structure, usage, and mechanics may be present, but do not interfere with communication.
- SCORE of 3** **The 3 essay is emergent.**
- The main idea is stated and may be developed with generalizations or lists.
 - Organization may be ambiguous.
 - Focus is somewhat maintained.
 - Vocabulary and sentence structure may be repetitive and ineffective.
 - A variety of errors in sentence structure, usage, and mechanics sometimes interfere with communication.
- SCORE of 2** **The 2 essay is rudimentary.**
- The main idea is incomplete or ambiguous and developed with generalizations or lists.
 - Organization is rudimentary.
 - Focus lapses in coherence.
 - Vocabulary is simplistic and sentence structure is disjointed.
 - A variety of errors in sentence structure, usage, and mechanics frequently interfere with communication.
- SCORE of 1** **The 1 essay is weak.**
- The main idea is incomplete or ambiguous and development is irrelevant.
 - Organization is illogical and/or incoherent.
 - Focus is not established.
 - Vocabulary and sentence structure are garbled.
 - Significant and numerous errors in sentence structure, usage, and mechanics interfere with communication.

Table of Question Formats

Type of Question	Sample Question
Essay Select a topic and develop an essay explaining the topic or supporting your position on the topic.	page 17
Command Select the best response option.	Question 1, page 19
Scenario Examine a situation, problem, or case study. Then answer a question, make a diagnosis, or recommend a course of action by selecting the best response option.	Question 2, page 25
Word Problem Apply mathematical principles to solve a real-world problem.	Question 3, page 25
Direct Question Choose the response option that best answers the question.	Question 5, page 26
Graphics Choose the option that best answers a question involving a number line, a geometric figure, graphs of lines or curves, a table, or a chart.	Question 8, page 27
Passage Read the passage and select the correct answer.	Question 1, page 28
Sentence completion Select the response option that best completes the sentence.	Question 2, page 29

Sample Questions

The following questions represent both the form and content of questions on the examination. These questions will acquaint you with the general format of the examination; however, these sample questions do not cover all of the competencies and skills that are tested and will only approximate the degree of examination difficulty.

An answer key for the multiple-choice questions follows at the end of the sample questions. The answer key includes information regarding the competency to which each question is linked.

SAMPLE ESSAY TOPICS

DIRECTIONS: Two topics are presented below. Select one of the topics as the basis for your essay. **READ THE TOPICS VERY CAREFULLY TO MAKE SURE YOU KNOW WHAT YOU ARE BEING ASKED TO DO.**

Topic 1.

Online schooling has expanded to include even the primary and secondary level, while some still believe that it cannot provide everything that traditional instruction can. Analyze the advantages and disadvantages of online schooling.

OR

Topic 2.

The sentiment has been expressed that it “has become appallingly obvious that our technology has exceeded our humanity.” Evaluate whether or not our technology has exceeded our humanity.

Read the two topics again and select the one on which you wish to write your essay. In order for your essay to be scored, it must be on only one of these topics, and it must address the entire topic.

In your essay, you should introduce the subject and then either

- explain the subject you have chosen or
- take a position about your subject and support that position.

At least two evaluators will read your essay and assign it a score. They will pay special attention to whether you observe the following:

- determine the purpose of writing to task and audience
- provide a section that effectively introduces the topic
- formulate a relevant thesis or claim
- organize ideas and details effectively
- provide adequate, relevant support by citing ample textual evidence; response may also include anecdotal experience for added support
- use of a variety of transitional devices effectively throughout and within a written text
- demonstrate proficient use of college-level, standard written English (e.g., varied word choice, syntax, language conventions, semantics)
- provide a concluding statement or section that follows from, or supports, the argument or information presented
- use a variety of sentence patterns effectively
- maintain consistent point of view
- apply the conventions of standard English (e.g., avoid inappropriate use of slang, jargon, clichés)

Take a few minutes to plan what you want to say before you start writing. Leave yourself a few minutes at the end of the period to proofread and make corrections.

Please see page 13 for advice on writing the essay and page 14 for the essay scoring criteria.

DIRECTIONS: Read each question and select the best response.

English Language Skills

1. DIRECTIONS: Choose the sentence in which the modifiers are correctly placed.
- A. While protesting the Vietnam War, clashes between Chicago police and demonstrators resulted in over 175 arrests at the Democratic National Convention.
 - B. While protesting the Vietnam War, Chicago police arrested over 175 demonstrators during clashes at the Democratic National Convention.
 - C. While protesting the Vietnam War, over 175 demonstrators were arrested for clashing with Chicago police at the Democratic National Convention.
 - D. While protesting the Vietnam War and clashing with the Chicago police, over 175 demonstrators were arrested.

2. DIRECTIONS: Choose the correct word or phrase that provides parallel structure to the sentence.

My cousin mowed the lawn, washed the family cars, cleaned the upstairs bathroom, and _____ on the sofa afterwards to watch the basketball game.

- A. he collapsed
 - B. he was able to collapse
 - C. collapsed
 - D. was collapsing
3. DIRECTIONS: Choose the option that corrects an error in the underlined portion(s). If no error exists, choose "No change is necessary."

If none of these positions appeals to you, don't despair, there will always be tomorrow's help-wanted ads to investigate.

- A. despair there
- B. despair. There
- C. despair; there,
- D. No change is necessary.

-
-
4. DIRECTIONS: Choose the most effective word or phrase within the context suggested by the sentence.

Before they left work that day, they _____ the incident to the insurance company.

- A. renounced
- B. relented
- C. related
- D. reserved

5. DIRECTIONS: Choose the option that corrects an error in the underlined portion(s). If no error exists, choose "No change is necessary."

Among the fifty dogs in the annual dog show, there are two poodles.

A

B

C

- A. Between
- B. their
- C. our
- D. No change is necessary.

6. DIRECTIONS: Choose the option that corrects an error in the underlined portion(s). If no error exists, choose "No change is necessary."

It was highly unlikely that he could pick up the medicine before the store closed.

A

Just as he was walking to the front door, the store manager sees him and unlocked

B

C

the door.

- A. closes
- B. saw
- C. unlocks
- D. No change is necessary.

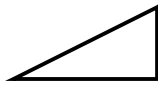
10. DIRECTIONS: Choose the option that corrects an error in the underlined portion(s). If no error exists, choose "No change is necessary."

As we drove by uncle George's house, I noticed that my math book was not in my
backpack, so I asked my sister to turn the car around and go back to school.

- A. Uncle
- B. Math
- C. Sister
- D. No change is necessary.

Mathematics Reference Sheet

Area



Triangle

$$A = \frac{1}{2}bh$$



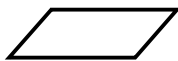
Rectangle

$$A = \ell w$$



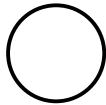
Trapezoid

$$A = \frac{1}{2}h(b_1 + b_2)$$



Parallelogram

$$A = bh$$



Circle

$$A = \pi r^2$$

KEY	
b = base	d = diameter
h = height	r = radius
ℓ = length	A = area
w = width	C = circumference
S.A. = surface area	V = volume
	B = area of base

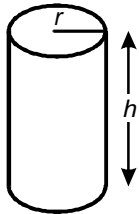
Use 3.14 or $\frac{22}{7}$ for π

Circumference

$$C = \pi d = 2\pi r$$

Surface Area

1. Surface area of a prism or pyramid equals the sum of the areas of all faces.
2. Surface area of a cylinder equals the sum of the areas of the bases and the area of its rectangular wrap.

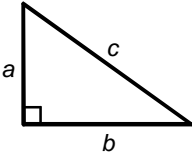


$$S.A. = 2(\pi r^2) + 2(\pi r)h$$

3. Surface area of a sphere: $S.A. = 4\pi r^2$

Volume

1. Volume of a prism or cylinder equals the Area of the Base (B) times the height (h).
 $V = Bh$
2. Volume of a pyramid or cone equals $\frac{1}{3}$ times the Area of the Base (B) times the height (h).
 $V = \frac{1}{3} Bh$
3. Volume of a sphere: $V = \frac{4}{3} \pi r^3$

<p>Pythagorean theorem: $a^2 + b^2 = c^2$</p> 	<p>Given a line containing points (x_1, y_1) and (x_2, y_2)</p> <ul style="list-style-type: none"> • Slope of line $\frac{y_2 - y_1}{x_2 - x_1}$ • Distance between two points $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$ • Midpoint between two points $\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$
<p>Simple interest formula: $I = prt$</p> <p>I = simple interest, p = principal, r = rate, t = time.</p>	
<p>Distance formula: $d = rt$</p> <p>d = distance, r = rate, t = time.</p>	

Conversions

1 yard = 3 feet = 36 inches
1 mile = 1,760 yards = 5,280 feet
1 acre = 43,560 square feet
1 hour = 60 minutes
1 minute = 60 seconds

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts
1 pound = 16 ounces
1 ton = 2,000 pounds

1 liter = 1000 milliliters = 1000 cubic centimeters
1 meter = 100 centimeters = 1000 millimeters
1 kilometer = 1000 meters
1 gram = 1000 milligrams
1 kilogram = 1000 grams

Metric numbers with four digits are presented without a comma (e.g., 9960 kilometers). For metric numbers greater than four digits, a space is used instead of a comma (e.g., 12 500 liters).

Mathematics

1. Which of the following symbols should be placed in the box to form a true statement?

$$-\frac{1}{3} \quad \square \quad -\frac{2}{5}$$

- A. =
B. <
C. >
D. ≤
2. The regular price of a computer is \$1200 and the regular price of a printer is \$300. An electronics store has a promotion that offers a 40% discount on the printer when the computer is purchased at the regular price. What is the total cost of the computer and the printer at the promotional price?
A. \$1320
B. \$1380
C. \$1460
D. \$1500
3. A building 51 feet tall casts a shadow 48 feet long. Simultaneously, a nearby statue casts a shadow of 16 feet. How tall is the statue?
A. 17 ft
B. 19 ft
C. 23 ft
D. 153 ft
4. A rectangular animal pen will be built using 200 meters of fencing. If one side of the rectangle is 60 meters, find the area of the pen.
A. 1200 m²
B. 1400 m²
C. 2400 m²
D. 8400 m²

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5. Which of the following is a solution of the inequality?

$$-3 < 2x + 1 < 5$$

- A. -2
 - B. 0
 - C. 2
 - D. 4
6. Solve for x.

$$\frac{4x-1}{5} = 2x + 1$$

- A. $-\frac{5}{3}$
 - B. -1
 - C. $\frac{5}{3}$
 - D. 1
7. The children in a family are ages 2, 2, 6, 12, 16, 19, and 20. What is the mean of the children's ages?
- A. 2
 - B. 11
 - C. 12
 - D. 18

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8. If the company would like to give the impression that its employees are highly paid, which salary statistics should it use?

Employee Salaries

Title	Yearly salary
President	\$120,000
Office manager	40,000
Foreperson	60,000
Laborer 1	15,000
Laborer 2	15,000
Laborer 3	15,000
Laborer 4	15,000

- A. minimum
B. mode
C. median
D. mean
9. Eight pumpkins were picked from a garden. Their weights were 8 pounds, 3 pounds, 7 pounds, 16 pounds, 8 pounds, 13 pounds, 12 pounds, and 1 pound. How much greater than the mean was the heaviest pumpkin?
A. 7 lb
B. 7.5 lb
C. 8 lb
D. 8.5 lb
10. A child has 26 pennies, 15 nickels, 21 dimes, and 18 quarters in a coin bank. When the child picks up the bank, a single coin falls out. What is the probability that the coin is a quarter?
A. $\frac{3}{16}$
B. $\frac{9}{40}$
C. $\frac{21}{80}$
D. $\frac{26}{80}$

Reading

When Hernando Cortéz left Cuba in February of 1519 with 550 soldiers on 11 ships, he could have no idea that one of the oldest soldiers in his company would become the last living survivor of his great conquest. Bernal Díaz not only participated in all of the great events of the conquest, but as an old, old man living almost without funds in Honduras, he happened to read an idealized and romanticized history of the conquest written by a priest and determined—at the age of 79—to set the record straight. Though Bernal Díaz died at the age of 84, he was able to complete his eminently readable six-volume account of the conquest of Mexico.

Though the priest's version of the conquest tells that Cortéz secretly burned the boats of the expedition so that his men would be unable to retreat and would have to advance, Díaz corrects him. Cortéz, says Díaz, was appalled to learn that the boats had been attacked by sea worms and that they were no longer seaworthy. Moreover, the fittings of the ships were made of metal that could be salvaged and used to make both guns and ammunition necessary for the conquest. According to Díaz, Cortéz called his men together and informed them of the problems, then they voted to burn the ships.

Díaz also sets the record straight with regard to Doña Marina, the brilliant girl from a Yucatan tribe who spoke several of the Mexican dialects and thus became invaluable to Cortéz as interpreter, negotiator, and guide. He acknowledges that Doña Marina bore Cortéz a son and that she was with Cortéz when Cortéz's wife died shortly after she arrived in Mexico City from Cuba. This situation was the center of a firestorm of gossip. But he tells how Cortéz arranged a marriage for Doña Marina with one of his lieutenants before marching off toward the Northwest on a new exploration and conquest and vanishing somewhere near the Sea of Cortéz—the inland bay between lower southern California and the mainland, the bay that bears his name.

Almost incidentally, Díaz describes how some indolent aristocrats from Spain, expecting to make their fortunes in the new world, were given large grants of land on some of the Caribbean islands. But, of course, they could earn little from their lands without workers, so they approached Bernal Díaz with the proposition that they would provide the financing if he would attack an island and carry back its population to bondage. His reward would be half of the captives.

Díaz showed his humanity and humility as he refused this partnership, declaring such an attack on the homes, culture, and lifestyle of free peoples a terrible injustice.

1. Identify the most accurate statement of the central idea of this passage.
 - A. Bernal Díaz corrected the record of Cortéz's conquest of Mexico.
 - B. Bernal Díaz proved that Cortéz did not trick his men into marching to Mexico by burning their boats.
 - C. Hernando Cortéz conquered Mexico in one of the greatest invasions the world has ever known.
 - D. Doña Marina was a great help to Cortéz during his great battles in Mexico.

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2. From this passage one could infer that the author
- A. likes Cortéz very much.
 - B. thinks Díaz was a fine man.
 - C. believes that Doña Marina and Cortéz murdered Cortéz's wife.
 - D. thinks the priest's version of the conquest is superior to that of Díaz.
3. All of the following pieces of information relate to Cortéz's conquest EXCEPT
- A. Cortéz asked his men to vote on whether or not to burn their ships.
 - B. Doña Marina was with Cortéz at the time of his wife's death.
 - C. the ships of the expedition had been attacked by sea worms and were no longer seaworthy.
 - D. Bernal Díaz refused to lead an expedition to bring back islanders as slaves.
4. In this context, the word *indolent* (paragraph 4) most nearly means
- A. infamous.
 - B. poor.
 - C. lazy.
 - D. frivolous.
5. The tone of this passage could best be described as
- A. reserved.
 - B. approving.
 - C. pious.
 - D. cynical.
6. The author's statement that Bernal Díaz was able to "set the record straight" (paragraph 1) is
- A. valid because the author presents several specific examples.
 - B. valid because the author is an expert in history.
 - C. invalid because of the lack of specific details.
 - D. invalid because of illogical conclusions.

7. What is the relationship between these two sentences?

Sentence 1: Though the priest's version of the conquest tells that Cortéz secretly burned the boats of the expedition so that his men would be unable to retreat and would have to advance, Díaz corrects him. (paragraph 2)

Sentence 2: Cortéz, says Díaz, was appalled to learn that the boats had been attacked by sea worms and that they were no longer seaworthy. (paragraph 2)

- A. Sentence 2 analyzes the comment in sentence 1.
- B. Sentence 2 contradicts the main idea of sentence 1.
- C. Sentence 2 explains the main idea of sentence 1.
- D. Sentence 2 continues the definition begun in sentence 1.

The American Symphony League has only one requirement of the hotels that host its annual convention: no background music. Ask members of the organization why, and they will vigorously explain that they want to be sensitized to music, not desensitized by the lilting rhythms and soothing melodies so often found in hotel lobbies. Whether it is referred to as elevator music, as mood music, or by the brand name Muzak, there is little question that this type of music strikes a discordant note with many listeners. Some say that it reminds them of a trip to the dentist's office, while others merely cringe at hearing their favorite songs re-recorded as symphonic mush. Through it all, however, background music has thrived as one of the most widely heard types of music in the world.

Given its seeming uniformity, it is easy to forget that background music is typically used for very specific purposes. One of its first uses was, of course, on elevators. Grinding and clicking from one floor to another, the first elevators made many passengers uneasy. Operators soon discovered that soft, comforting music was helpful for reducing motion sickness and coaxing the hesitant to step inside. Not long after, background music companies began marketing their products to businesses and places of recreation with the idea that music could enhance the moods of both workers and consumers. Muzak was the clear leader in this field, and the company soon perfected program formatting that addressed the needs of clients during each hour of the day. A typical restaurant program progressed from cheerful wake-up melodies in the morning, through light classical sounds at lunch, cocktail music in the afternoon, elegant tones during dinner, and dance music of increased tempo and volume in the late evening hours. By the early 1940s, this same program could be heard in over 1,000 restaurants.

An unfortunate backlash against background music began in the following decade. By that time, the soothing harmonies could be heard in restaurants, offices, trains, planes, and on phone lines across the world. People began to complain that playing prerecorded music in public places was a violation of their privacy. A lawsuit that protested the music and advertisements on public buses in Washington, D.C., made it all the way to the Supreme Court. Although the Court ruled in favor of the city, Justice William O. Douglas wrote a strongly worded dissent that defended the right to be left alone.

Today, many people are thankful that background music weathered this storm of criticism. They are even more thankful that it has evolved from its early form. Still heard by as many as 100 million people a day, the music is much more likely to sound like it is coming from a radio station than from a wilted orchestra. Meanwhile, the Muzak corporation is working to redefine its image with an edgy new website and playlists that heavily favor pop songs. After seven decades, people may finally be ready for background music to take a bold step forward.

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8. Which of the following is used by the author as an example of the unpleasant associations that listening to background music evokes in certain people?
- A. traveling by plane
 - B. going to work
 - C. visiting a dentist's office
 - D. riding in an elevator
9. The organizational plan used by the author in paragraphs 2–4 can best be described as
- A. order of importance.
 - B. spatial order.
 - C. comparison and contrast.
 - D. chronological order.
10. What is the relationship between these two sentences from the passage?

Sentence 1: People began to complain that playing prerecorded music in public places was a violation of their privacy. (paragraph 3)

Sentence 2: A lawsuit that protested the music and advertisements on public buses in Washington, D.C., made it all the way to the Supreme Court. (paragraph 3)

- A. Sentence 2 restates a point made in sentence 1.
- B. Sentence 2 relates a consequence of a development described in sentence 1.
- C. Sentence 2 clarifies a point made in sentence 1.
- D. Sentence 2 describes a solution to a problem stated in sentence 1.

Answer Key

English Language Skills

Question Number	Correct Response	Competency
1.	C	01
2.	C	01
3.	B	01
4.	C	02
5.	D	02
6.	B	03
7.	B	03
8.	C	03
9.	B	03
10.	A	03

Reading

Question Number	Correct Response	Competency
1.	A	01
2.	B	01
3.	D	01
4.	C	02
5.	B	02
6.	A	03
7.	C	03
8.	C	01
9.	D	02
10.	B	03

Mathematics

Question Number	Correct Response	Competency
1.	C	01
2.	B	01
3.	A	02
4.	C	02
5.	B	03
6.	B	03
7.	B	04
8.	D	04
9.	B	04
10.	B	04



Annotated Bibliography

The annotated bibliography that follows includes basic references that you may find useful in preparing for the exam. Each resource is linked to the competencies and skills found in Section 4 of this guide.

This bibliography is representative of the most important and most comprehensive texts pertaining to the competencies and skills. The Florida Department of Education does not endorse these references as the only appropriate sources for review; many comparable texts currently used in teacher preparation programs also cover the competencies and skills that are tested on the exam.

English Language Skills

1. Baugh, L. S. (2005). *Essentials of English grammar* (3rd ed.). New York, NY: McGraw-Hill.
Contains general usage rules for parts of speech, punctuation, capitalization, abbreviations, numbers, word division, and commonly confused words. Includes style guidelines with tips on how to write with economy, clarity, and accuracy. Useful for review of competencies 1 and 3.
2. Beck, I., McKeown, M., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York, NY: Guilford Press.
Guides in selection of words for instruction, developing explanations of new words, creating meaningful learning activities, and getting involved in thinking about, using, and noticing new words. Based on a framework founded in research that contains practical strategies for vocabulary development. Useful for review of competency 2.
3. Fowler, H. R., & Aaron, J. E. (2011). *The Little, Brown handbook* (12th ed.). Boston, MA: Pearson Longman.
Provides coverage of the writing process, grammar and usage, research, and documentation while also giving discussions of critical reading, academic writing, reading and writing arguments, writing in the disciplines, and public writing. Useful for review of competency 3.
4. Graves, M. F. (2006). *The vocabulary book: Learning and instruction*. New York, NY: Teachers College Press.
Offers a comprehensive plan for vocabulary instruction broad enough to instruct students with varying vocabulary abilities. Useful for review of competency 2.

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5. Hacker, D. (2009). *The Bedford handbook* (7th ed.). Boston, MA: Bedford/St. Martin's.
Provides basic explanations of proper grammar, composition, citation, and textual analysis. Useful for review of all competencies.
 6. Hairston, M., Ruszkiewicz, J., & Friend, C. (2004). *The Scott Foresman handbook for writers* (7th ed.). Upper Saddle River, NJ: Pearson.
Includes topics such as writing process, writing for academic and public forums, style, visual design, grammar, punctuation, and mechanics. Useful for review of all competencies.
 7. Lunsford, A. A. (2007). *The everyday writer* (4th ed.). Boston, MA: Bedford/St. Martin's.
Addresses strategies that can aid writers through every writing situation. Useful for review of competencies 1 and 3.
 8. Raimes, A. (2005). *Keys for writers* (4th ed.). Boston, MA: Houghton Mifflin.
Offers complete coverage of grammar, writing, research, and documentation processes. Useful for review of competencies 1 and 3.
 9. Robb, L., Klemp, R., & Schwartz, W. (2002). *Reader's handbook: A student's guide for reading and learning*. Wilmington, MA: Great Source Educational Group.
Supports vocabulary acquisition and reading contextually to determine the meaning of unknown words. Useful for review of competency 2.
 10. Royster, J. J., & Lester, M. (1996). *Writer's choice: Grammar and composition*. New York, NY: Glencow/McGraw Hill.
Provides practice in the use of clauses, modifiers, and tenses for more effective writing. Useful for review of competencies 1 and 3.
 11. Winterrowd, W. R., & Murray, P. Y. (1985). *English: Writing and skills*. San Diego, CA: Coronado.
Includes exercises and examples in order to improve writing and grammar. Useful for review of competencies 1 and 3.

Mathematics

1. Bennett, A. B., Burton, L. J., & Nelson, L. T. (2012). *Mathematics for elementary teachers: A conceptual approach* (9th ed.). New York, NY: McGraw-Hill.
Contains a strong focus on the development of mathematical skills and the instructional practices that most encourage success. Useful for review of competency 1.

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2. Collins, W., Cuevas, G., Foster, A. G., Gordon, B., Moore-Harris, B., Rath, J., et al. (2001). *Algebra 2: Integration, applications, connections*. New York, NY: Glencoe/McGraw-Hill.
Balances sound skill and concept development with applications, connections, problem solving, critical thinking, and technology. Useful for review of competency 3.
 3. Larson, R., Boswell, L., Kanold, T., & Stiff, L. (2004). *Algebra I: Applications, equations, graphs*. Evanston, IL: McDougall Littell.
Helps Algebra I students connect to essential mathematical concepts with integrated print and technology support. Useful for review of competencies 1 and 3.
 4. Larson, R., Boswell, L., Kanold, T. D., & Stiff, L. (2007). *Middle school math course 3*. Evanston, IL: McDougal Littell.
Presents a survey of basic mathematics skills helpful for understanding the fundamentals of algebra and geometry. Useful for review of competency 1.
 5. Mandery, M., & Schneider, M. (2000). *Achieving proficiency in mathematics*. New York, NY: AMSCO School Publications.
Promotes mathematical mastery through critical thinking and applied strategies, including the use of the calculator as a tool for exploration and implementation. Emphasizes data reading and interpreting statistical information summarized in tables, bar graphs, and line graphs. Useful for review of all competencies.
 6. Moore, D. (2007). *The basic practice of statistics* (4th ed.). New York, NY: Freeman.
Introduces students with limited mathematical backgrounds to the same tools, techniques, and interpretive skills that working statisticians rely on daily. Useful for review of competency 4.
 7. Serra, M. (2008). *Discovering geometry: An investigative approach* (4th ed.). Berkeley, CA: Key Curriculum Press.
Enables students to learn theorems and definitions by performing constructions, measuring figures, relating patterns and properties, and discussing their findings. Uses real-world applications, puzzles, and extensions to keep students involved and thinking. Useful for review of competency 2.
 8. Shapiro, M. S. (1977). *Mathematics encyclopedia*. Garden City, NY: Main Street Books.
Explains mathematical terms in a manner that most can understand. Useful for review of competency 2.

Reading

1. Beck, I., & McKeown, M. (2006). *Improving comprehension with questioning the author: A fresh and expanded view of a powerful approach*. New York, NY: Scholastic Professional Books.
Provides support in gaining meaning from text including explicit examples and numerous classroom cases. Useful for review of all competencies.
2. Block, C. C. (2004). *Teaching comprehension: The comprehension process approach*. Boston, MA: Pearson Allyn & Bacon.
Includes innovative lessons and approaches based on research-based practices. Useful for review of competencies 1 and 2.
3. Elder, J. (2004). *Exercising your college reading skills: Developing more powerful comprehension*. New York, NY: McGraw-Hill.
Reinforces essential reading skills. Offers college-level reading selections from multiple disciplines, writing prompts, and quizzes at a companion website. Useful for review of all competencies.
4. Gunning, T. G. (2013). *Creating literacy instruction for all students* (8th ed.). Boston, MA: Pearson.
Includes plans and strategies to develop appropriate lesson plans that enable students to achieve higher levels of literacy. Useful for review of competencies 1 and 2.
5. Hobbs, R. (2011). *Digital and media literacy: Connecting culture and classroom*. Thousand Oaks, CA: Corwin.
Demonstrates usage of digital media to support the development of print literacy skills, as well as to entertain and to engage. Links skills such as authentic inquiry and the use of critical questions to popular culture, bringing relevance to the learning experience. Useful for review of competency 3.
6. Smith, B. D. (2005). *Bridging the gap: College reading* (8th ed.). New York, NY: Pearson Longman.
Links textbook readings to news in the popular press. Includes material on critical thinking and the Internet. Also includes material at various reading levels from multiple academic disciplines. Useful for review of all competencies.
7. Spears, D. M. (2006). *Developing critical reading skills* (7th ed.). New York, NY: McGraw-Hill Higher Education.
Designed for intermediate and advanced reading courses. Features a variety of selections and excellent coverage of critical reading skills. Useful for review of all competencies.

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8. Vacca, R. T., & Vacca, J. L. (2005). *Content area reading* (8th ed.). Boston, MA: Pearson Allyn & Bacon.
Addresses reading, writing, speaking, and listening processes to support learning across the curriculum through an active learning tool complete with real-world examples and research-based practices. Useful for review of all competencies.



Additional Information

Please visit the following website to review FTCE registration details and to find additional FTCE information, including test locations and passing scores.

www.fldoe.org/accountability/assessments/postsecondary-assessment/ftce/