

## Florida Embraces the Continuous Improvement Model & the Eight-Step Process

- Disaggregate Data
- Develop Timeline and Instructional Focus Calendar
- Deliver Focused Benchmark Lessons
- Administer Mini-Assessments of Benchmarks
- Provide Tutorials for Non-Mastery Students
- Provide Enrichments for Non-Mastery Students
- Monitor Instructional Delivery
- Maintain Efficacy of the Process

## Update to Florida Specifications for Upcoming Instructional Materials Adoptions

### Schools Are Encouraged To Initially:

- Disaggregate Their Data (By School, By Classroom, By Subject, By Student)
- Develop a Timeline and Instructional Focus Calendar Based on Weakest to Strongest Benchmarks

### Publishers are Encouraged to Deliver Comprehensive Programs That Include:

- Focused Benchmark Lessons
- Mini-Assessments
- Tutorials
- Enrichments
- Correlations that Clearly Specify Locations of Each of the Four Components Above

## The Continuous Improvement Model & the Eight-Step Process

- Focused Benchmark Lessons (Embedded in Instructional Materials Programs) are Delivered in the Classroom
- Mini-Assessments, Tied to the Benchmark Lessons & Integral to the Instructional Materials Program, are Delivered to Determine Mastery
- Based on Mini-Assessments, Non-Mastery Students are Provided Tutorials Designed as Part of the Instructional Materials Program
- Mastery Students are Provided Enrichment Experiences Designed as Part of the Instructional Materials Program
- Teachers are Provided Professional Development Opportunities When Student Tutorials are Not Effective. These Opportunities are Delivered via Chat Rooms, Streaming Video of Master Teachers, On-Line Professional Development, or Training from Publisher Consultants.

## Update to Florida Specifications for Upcoming Instructional Materials Adoptions

- The Instructional Leader of the School Constantly Monitors Instructional Delivery In the Classroom.
- The Eighth & Final Step Emphasizes Maintaining the Instructional Focus and Making Adjustments When Necessary Using Common Planning Time, Professional Development for All Staff, etc.

Instructional Materials  
Specifications  
Florida's Science Adoption  
2005-2006



All Students Can Learn Science

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## Link to Applicable Florida Statutes:

[http://www.flsenate.gov/Statutes/index.cfm?App\\_mode=Display\\_Statute&Search\\_String=&URL=Ch1006/PART01spF.HTM](http://www.flsenate.gov/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=Ch1006/PART01spF.HTM)

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Florida Department of Education

Office of Instructional Materials

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# Florida Perspective

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Florida has created a school improvement and accountability initiative to reform education in its public schools. The goal of this initiative is to raise student achievement to world-class levels. To this end, new, high-level academic standards, called the Sunshine State Standards, have been created delineating expected achievement by all students. The Sunshine State Standards for science are presented in Chapter 3 of Florida's Curriculum Framework for Science.

Florida's reform effort is based on a commitment to continuous quality improvement in every school across the state. As such, it calls for improvement teams in schools to articulate a fundamentally new direction for instruction and to reexamine the ways in which the day-to-day business of schools is conducted. A number of assumptions provide a foundation for Florida's school improvement and accountability initiative. These include the following:

- All children can learn at high levels, given proper instruction in a supportive environment.
- All schools can be successful.
- The Florida focus is on accountability for student achievement; schools focus on schooling and instructional processes necessary to raise student achievement.
- Children's health, safety, social, and educational needs must be met collaboratively by schools, parents, agencies, and the community.
- Education stakeholders closest to the learners are best able to determine the appropriate strategies to identify and solve school problems and to improve instruction.
- Individual schools are the unit of educational accountability for improving student performance, and school-level public reporting of effectiveness is a critical component of accountability.
- Continuous quality improvement is "the way of work". It results in a focus on education stakeholders, collegiality, teamwork, collaboration, responsiveness, flexibility, innovation, risk taking, and effectiveness.
- Florida's reform initiative focuses on what students need to know and be able to do in the 21st century.

Education reform is about developing the capacity at the local level to identify and solve problems related to raising student achievement. Raising student achievement requires both (1) raising expectations through high academic standards grounded in a foundation of reading, writing, mathematics, and science applied in real world contexts; and (2) improving the environment for effective teaching and learning based on current research about how people learn.

## Florida's Vision for Science Education

This vision for science education, developed by the statewide curriculum framework writing team with input from the development of *Science for All Students (1993)*, is presented as a starting point to encourage local communities to develop science education visions for their students, their classrooms, their schools, and their district. Students who learn science as envisioned by this framework become citizens who are actively and joyfully engaged in the world around them. They make well-reasoned, data-based decisions, continue to ask thoughtful questions and explore possible responses. Students clearly communicate those questions, responses, and findings to those around them. Learning science is a lifelong adventure that positively affects people in their daily lives and careers. As students do science, they see the relationship between science and other areas of human understanding; therefore, science instruction is relevant and recognizes the different ways and settings in which people learn.

A major consequence of science education is the awakening of a feeling of excitement and adventure. Students are engaged in multiple science experiences that nurture curiosity about their own world and foster joy in their increasing understanding of the phenomena they observe and investigate. Engaging in scientific inquiry increases their ability to offer reasonable explanations, make predictions, and formulate logical conclusions. Through a basic knowledge of science, students learn about the world, its technology, and its environment and the decisions that must be made to preserve the planet. Science strengthens the ability to think objectively and creatively.





# Publishers' Submissions

## Elementary Science Grades K-5

- Elementary Science Series, K-5

### Science Sunshine State Standards Grades PK-2

<http://www.firn.edu/doe/curric/prek12/pdf/sciencek.pdf>

### Science Sunshine State Standards Grades 3-5

<http://www.firn.edu/doe/curric/prek12/pdf/science3.pdf>

## Middle/Junior Science Grades 6-8

<http://www.firn.edu/doe/curriculum/crscode/basic612/sci68.htm>

### ◆ Biological Sciences

- **2000010** M/J Life Science (24 K)
- **2000020** M/J Life Science, Advanced (12 K)

### ◆ Earth/Space Sciences

- **2001010** M/J Earth/Space Science (28 K)
- **2001020** M/J Earth/Space Science, Advanced (12 K)

### ◆ General Sciences

- **2002040** M/J Comprehensive Science 1 (24 K)
- **2002050** M/J Comprehensive Science 1, Advanced (12 K)
- **2002070** M/J Comprehensive Science 2 (24 K)
- **2002080** M/J Comprehensive Science 2, Advanced (12 K)
- **2002100** M/J Comprehensive Science 3 (24 K)
- **2002110** M/J Comprehensive Science 3, Advanced (12 K)

### ◆ Physical Sciences

- **2003010** M/J Physical Science (24 K)
- **2003020** M/J Physical Science, Advanced (12 K)

## High School Science Grades 9-12

<http://www.firn.edu/doe/curriculum/crscode/basic612/sci912.htm>

### ◆ Biological Sciences

- **2000310** Biology I (12 K)
- **2000320** Biology I Honors (12 K)
- **2000330** Biology II (8 K)
- **2000340** Advanced Placement Biology (8 K)

- **2000350** Anatomy and Physiology (8 K)
  - **2000360** Anatomy and Physiology Honors (8 K)
  - **2000370** Botany (8 K)
  - **2000380** Ecology (8 K)
  - **2000390** Limnology (8 K)
  - **2000410** Zoology (8 K)
  - **2000430** Biology Technology (12 K)
  - **2000440** Genetics (18 K)
- ◆ **Earth Space Sciences**
- **2001310** Earth/Space Science (12 K)
  - **2001320** Earth/Space Science Honors (12 K)
  - **2001350** Astronomy Solar/Galactic (8 K)
  - **202091A** Astronomy Solar/Galactic Honors (16 K)
- ◆ **General Science**
- **2002330** Space Technology and Engineering (8 K)
- ◆ **Integrated Sciences**
- **2001340** Environmental Science (8 K)
  - **2001380** Advanced Placement Environmental Science (4 K)
  - **2002400** Integrated Science I (12 K)
  - **2002410** Integrated Science I Honors (12 K)
  - **2002420** Integrated Science II (12 K)
  - **2002430** Integrated Science II Honors (12 K)
  - **2002440** Integrated Science III (8 K)
  - **2002450** Integrated Science III Honors (12 K)
  - **2002460** Integrated Science IV (4 K)
  - **2002470** Integrated Science V (8 K)
  - **2002500** Marine Science I (8 K)
  - **2002510** Marine Science I Honors (8 K)
  - **2002520** Marine Science II (12 K)
  - **2002530** Marine Science II Honors (12 K)
  - **2002540** Solar Energy and Other Alternative Resources I (40 K)
  - **2002550** Solar Energy and Other Alternative Resources II (40 K)
- ◆ **Physical Sciences**
- **2003310** Physical Science (12 K)
  - **2003320** Physical Science Honors (12 K)
  - **2003340** Chemistry I (12 K)
  - **2003350** Chemistry I Honors (12 K)
  - **2003360** Chemistry II (8 K)
  - **2003370** Advanced Placement Chemistry (8 K)
  - **2003380** Physics I (12 K)
  - **2003390** Physics I Honors (12 K)
  - **2003410** Physics II (8 K)
  - **2003420** Advanced Placement Physics B (8 K)
  - **2003430** Advanced Placement Physics C (8 K)
  - **2003600** Principles of Technology I (8 K)
  - **2003610** Principles of Technology II (8 K)

# Major Priorities for Instructional Materials

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The priorities as described in this specification document were developed from research findings about what makes instructional materials effective. These priorities have undergone review by individuals who have served on state and district committees, by curriculum specialists, by instructional designers, by evaluation specialists, and by administrators of the statewide adoption system.

Instructional materials must be effective in three major priority areas: content, presentation, and learning. The following sections describe essential features for each of these priority areas. These features generally apply to all formats of instructional materials, whether print or other media/multiple media formats.

## Content

Some features of content coverage have received progressively more attention over the past decade. These features include:

<b>ALIGNMENT WITH CURRICULUM REQUIREMENTS</b>
<b>LEVEL OF TREATMENT OF CONTENT</b>
<b>EXPERTISE FOR CONTENT DEVELOPMENT</b>
<b>ACCURACY OF CONTENT</b>
<b>RELEVANCE OF CONTENT</b>
<b>AUTHENTICITY OF CONTENT</b>
<b>MULTICULTURAL REPRESENTATION</b>
<b>HUMANITY AND COMPASSION</b>

**The following sections describe the content features expected for each of these priority areas.**

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#### **A. ALIGNMENT WITH CURRICULUM REQUIREMENTS**

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**Content must align with the state’s standards for the subject, grade level, and learning outcomes. See Florida Statutes 1006.34(2)(b); 1006.38; 1006.31; 1006.42**

For grades K-12, the content must include and be aligned with the *Sunshine State Standards* for the science subject area. Additionally, for grades 6-8 and grades 9-12, the content must align with the specific course descriptions found on the web (<http://www.firn.edu/doe/curriculum/crscode/basic612/readfirs.htm>).

The *Sunshine State Standards* are arranged by content strands and in grade clusters, K-2, 3-5, 6-8, and 9-12. Each standard contains specific Benchmarks that are more specific and not prescriptive. The *Sunshine State Standards* are approved by the State Board of Education, and according to Florida statute the instruction of the *Standards* must be implemented and provided by Florida’s public school districts. These *Standards* are included in Appendix A of this document. They can be accessed in cluster format at the Department of Education web site (<http://www.firn.edu/doe/curric/prek12/frame2.htm>).

**Correlations.** Publishers are expected to provide correlation reports in the form of charts, tables, or lists to show exactly where and to what extent (mentioned or in-depth) the instructional materials cover each required Sunshine State Standard.

**Scope.** The content should address Florida’s required curriculum standards for the subject, grade level, and learning outcomes, including thinking and learning skills.

**Completeness.** The content of the major tool should be complete enough to stand on its own. To be useful for classroom instruction, instructional materials must be adaptable to the instructional goals and course outlines for individual school districts, as well as the state standards. Content should have no major omissions in the required content coverage. They may include concepts and topics that enrich and extend science literacy but should be free of unrelated facts and information that would detract from achievement of Florida’s specified Sunshine State Standards.

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#### **B. LEVEL OF TREATMENT OF CONTENT**

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**The level of complexity or difficulty of content must be appropriate for the standards, student abilities and grade level, and time periods allowed for teaching.**

**See Florida Statutes 1006.31(4)(e); 1006.34(2)(a); 1006.34(2)(b)**

**Objectives.** Content should be simple, complex, technical, or nontechnical enough for the intended objectives.

**Students.** Content should be developmentally appropriate for the age and maturity level of the intended students. It should contain sufficient details for students to understand the significance of the information presented and to engage in reflection and discussion.

**Time.** The level of complexity or difficulty of content also should allow for its coverage during the time periods available for teaching the subject.

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### **C. EXPERTISE FOR CONTENT DEVELOPMENT**

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**Expertise in the content area and in education of the intended students must be reflected in the authors, reviewers, and sources that contributed to the development of the materials. See Florida Statutes 1006.38(15)**

**Authorship.** The authors, consultants, and reviewers must have actually contributed to the development of the instructional materials and should have credentials that reflect expertise in the subject area, course, course category, grade level, pedagogy, education, teaching, or classroom instruction. Qualifications may include expertise in educational psychology or instructional design.

**Sources.** Primary and secondary sources should reflect expert information for the subject, such as relevant data from research journals, and other recognized scientific sources.. The type of sources considered appropriate will vary with the particular subject area.

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### **D. ACCURACY OF CONTENT**

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**Content must be accurate in historical context and contemporary facts and concepts. See Florida Statutes 1006.38; 1006.31(4)(e)**

**Objectivity.** Content that is included in the materials should accurately represent the domain of knowledge and events. It should be factual and objective. It should be free of mistakes, errors, inconsistencies, contradictions within itself, and biases of interpretation. It should be free of the biased selection of information. Materials should distinguish between facts and possible interpretations or opinions expressed about factual information. Visuals or other elements of instruction should contribute to the accuracy of text or narrative.

**Representativeness.** The selection of content should not misrepresent the domain of knowledge and events. It should include the generally accepted and prevalent theories, , major concepts, laws, standards, and models used within the discipline of the subject area.

**Correctness.** Presentation of content should be free of typographical and visual errors. It should include correct grammar, spelling, linguistics, terminology, definitions, descriptions, visuals, graphs, sounds, videos, and all other components of the instructional materials.

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## E. RELEVANCE OF CONTENT

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**Content must be up-to-date for the academic discipline and the context in which the content is presented. See Florida Statutes 1006.37(1)(e); 1006.38**

**Dates or editions.** Copyright dates for photographs and other materials and editions should suggest sufficient currentness of content. Copyright dates and editions serve as indicators about currentness. However, neither the copyright date nor the edition guarantees currentness. Subsequent editions should reflect more up-to-date information than earlier editions.

Informed examination of the text, narrative, and visuals contained in the materials provides the most direct information about currentness of the materials.

**Context.** Text or narrative, visuals, photographs, and other features should reflect the time periods appropriate for the objectives and the intended learners.

- Sometimes context should be current. For example, a photograph used to show stages of human growth and development will be more relevant when the clothing, hairstyles, and activities reflect present-day styles.
- Sometimes context should be historical. For example, illustrations and photographs of historical events should reflect the historical time period.
- Sometimes context should be both current and historical. For example, historic images alongside modern ones would convey changes in styles over time.
- At all times the context should be relevant to the learner, to the Sunshine State Standards, and to the concept presented.

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## F. AUTHENTICITY OF CONTENT

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**Content should include problem-centered connections to life in a context that is meaningful to students. See Florida Statutes 1006.31(e); 1006.31(4)(b); 1003.42**

**Life connections.** Instructional materials should include connections to the student's life situations in order to make the content meaningful. Students might be expected to deal with time constraints, consider risks and trade-offs in decision-making, and work with teams. Connections may be made to situations of daily home life, careers, vocation, community events and services, and leisure or recreation.

**Interdisciplinary treatment.** Instructional materials also should include interdisciplinary connections in order to make content meaningful. Examples of situations that connect a variety of subject areas include building projects, playing sports, retrieving information or objects, balancing budgets, creating products, and researching information. In addition to subject area connections, instructional materials should connect the course or course category to other disciplines.

Examples of approaches to interdisciplinary connections include:

- explanations and activities for using skills and knowledge from other academic disciplines
- assignments that require students to relate learning from other disciplines rather than to isolate knowledge or skills
- the focus on common themes across several subject areas (infusion, parallel, transdisciplinary, or multidisciplinary instruction).

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## **G. MULTICULTURAL REPRESENTATION**

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**Portrayal of gender, ethnicity, age, work situations, and various social groups must include multicultural fairness and advocacy. See Florida Statutes 1003.42; 1006.31(4)(a); 1006.341**

**Multicultural fairness.** Through balanced representation of cultures and groups in multiple settings, occupations, careers, and lifestyles, the materials should support equal opportunity without regard for age, color, gender, disability, national origin, race, or religion. It is not the number of pages devoted to diversity, equity, or work roles, but the substance of what is stated and portrayed that matters most. For this reason, it can be misleading to count the number of pages or illustrations devoted to a social issue or group. It is more important to focus on the integration of social diversity throughout a set of instructional materials.

In addition to balanced representations, the portrayal of individuals and situations must exclude biases and stereotypes. These portrayals must promote an understanding and appreciation of the importance and contributions of diverse cultures and heritage.

**Multicultural advocacy.** The understanding and appreciation of multiple cultures extends beyond fair representation. It involves embracing a multicultural context, not just through pictures, but through information about ways to honor differences and deal with conflicts, promote a positive self-image for members of all groups, and provide for the development of healthy attitudes and values.

Effective treatment of multicultural issues requires consideration of the age and ability levels of students and whether or not it is appropriate to include multicultural issues in the study of a particular topic, such as the memorization of a formula or equation. Overall, however, materials should reflect both multicultural fairness and advocacy.

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## H. HUMANITY AND COMPASSION

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**Portrayal of the appropriate care and treatment of people and animals must include compassion, sympathy, and consideration of their needs and values and exclude hard-core pornography and inhumane treatment. See Florida Statutes 1003.42; 1006.31(4)©; 1006.34(2)(b)**

**Inclusion of compassion.** When providing examples in narrative or visuals, materials sometimes depict the care and treatment of people and animals. Generally, this means showing in some way a measure of compassion, sympathy, or consideration of their needs and feelings.

**Exclusion of inhumanity.** In the context of personal and family values, Florida expressly prohibits material containing *hard-core pornography*. In addition, although the definition of *inhumane treatment* can sometimes appear to be controversial, as in science research, there is general agreement that instructional materials should not advocate any form of inhumane treatment.

As with the evaluation of multicultural representation, it is important to consider the context of the subject and the age and abilities of the students.

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## REFERENCES FOR CONTENT FEATURES

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*For a complete list of references and citations, please refer to **Destination: Florida Classrooms—Evaluator’s Handbook**, or request a list of references from the Department of Education, Bureau of School Improvement.*



# Presentation

Features of presentation affect the practical usefulness of materials and the ease of finding and understanding content. These features include:

<b>A. COMPREHENSIVENESS OF STUDENT AND TEACHER RESOURCES</b>
<b>B. ALIGNMENT OF INSTRUCTIONAL COMPONENTS</b>
<b>C. ORGANIZATION OF INSTRUCTIONAL MATERIALS</b>
<b>D. READABILITY OF INSTRUCTIONAL MATERIALS</b>
<b>E. PACING OF CONTENT</b>
<b>F. EASE OF USE OF MATERIALS</b>

The following sections describe the presentation features expected for each of these areas.

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## **A. COMPREHENSIVENESS OF STUDENT AND TEACHER RESOURCES**

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**Resources must be complete enough to address the targeted learning outcomes without requiring the teacher to prepare additional teaching materials for the course. See Florida Statutes 1006.34(2)(a); 1006.34(2)(b)**

Materials should contain support for students in completing instructional activities and assessments and for teachers in implementing all of the instructional elements. A variety of components can accomplish this purpose. Typically, materials will include test items, study guides, outlines and strategies for teaching, media supplements, learning activities, and projects.

The major components generally expected for student and teacher resources are listed below.

**Student resources.** Student materials typically include the major text or program with text or narration, visuals, assignments, and assessments. Formats may include print, audio, visual, computer, or other media.

Effective instructional materials generally integrate the use of reference aids (e.g., index, glossary, maps, bibliography, graphic organizers, and pictures) with the topic being studied. Items that guide students through materials might include clearly labeled materials, directions and explanations, and assignments with menus of choices.

Review and practice activities might include participation activities such as simulations, role-playing situations, investigations, and hands-on practice assignments. Review activities might include self-checks or quizzes. Formats might include worksheets, workbooks, journals, lab books, lab logs, charts, or maps. Feedback might be in the form of answer keys in student materials or in teacher materials.

Review works best as a logical extension of content, goals, objectives, and lessons, with increased similarity to real-life situations. Review activities should require students to recall or apply previously taught knowledge and skills. Frequent short reviews over time or space improve learning more than a concentrated review. Assignments and stages of small practice improve speed and accuracy.

Other components might include enrichment and remediation activities, additional resources, and tests and assessment tools either in the student materials or in the teacher's guide or edition.

In addition:

- Student materials, other than the major tool, must be copy- or print-ready. In addition, publishers are required to provide CD or web-accessible materials that can be downloaded and modified to meet the needs of the individual teacher or student.
- Student resources must include materials that are designed for student discovery or construction of concepts and are appropriate for labs, centers, individual or cooperative group work. These materials should be aimed at a variety of learning styles. These materials should include specific safety protocols.
- The major tool and other materials must include engaging activities that use technology, such as calculators, probeware, interactive software, and websites.
- Student resources must include challenging and engaging problems, such as inquiry-based investigations that will require persistence over a period of time. These investigations should allow time for reflective thinking.
- The major tool and other student materials must be consistent with the problem-solving focus of the *Sunshine State Standards*. Appropriate materials include
  - activities and problems that address more than one science strand;
  - investigations that integrate across science areas;
  - open-ended questions that require students to reflect upon, demonstrate, and explain their work (either orally or in writing);
  - instruction in the use and/or construction of rubrics for grading performance tasks;
  - creative tasks (i.e. design experiments, make illustrations, construct models or prepare graphs);
  - and multiple-choice questions that demand higher cognitive level thinking.

In general, these attributes are consistent with excellent instructional materials. The materials should be a natural part of the content presentation and **should not** be labeled as FCAT preparation materials.

Specific FCAT preparation materials are not required. Should a publisher choose to offer such optional materials, they must be consistent with the *Sunshine State Standards* and correlated with the *FCAT Science Test Item and Performance Task Specifications*. These are available through the DOE Homepage

(<http://www.firn.edu/doe/sas/fcat/>) and through the Building a Presence for Science in Florida web site (<http://ecommerce.nsta.org/bap/>).

- In science classes, there are often students who are unable to read at the readability level of the science materials. The language of science may be challenging for some readers because of the uniqueness of the language. There may be a greater ratio of complex words to the total number of words in the reading passage. Ancillary materials should be provided to assist with reading instruction in the science content area. Do not let the vocabulary stand in the way of understanding the concepts.

To assist all students in reading and understanding the terminology of science, the derivation and morphology of science terms should be included in the major tool to teach the meaning of the “morphemes” that are the building blocks of the scientific terms while they are being introduced or addressed. For example, the word “biology” consists of “bio” which means “life” and “ology” which is related to “study of”. Thus, the word “biology” literally means “study of life;” but analysis of the morphemes leads to connections to the “biosphere” and “biometrics”. The goal is to help the students infer the meanings of new words that they may encounter that contain the same or similar morphemes. Such analysis may also be helpful to non-English speaking students whose first languages use Greek or Latin roots that are used in science terms.

**Teacher resources.** Teacher materials typically include a teacher’s edition with the annotated student text and copies of supplementary written materials with answer keys, worksheets, tests, diagrams, etc., so that the teacher has to use only one guide. Inservice training, workshops, and consulting services should be made available by publishers to support teachers in implementing instructional materials. Professional development is essential to the success of any science program especially when a program contains non-traditional elements. Publishers should clearly indicate the recommended amount and types of professional development that they will provide, and they should work with districts and schools to ensure that teachers receive the support that they need. The materials for the teacher should support continued teacher learning.

Support, guidelines, resources, or features such as the ones described below should be available to help teachers effectively implement materials in classroom and school settings.

- (1) **Components and materials are easy to use:** Examples include clearance, license, or agreement for copying and use of materials; clear description and accurate directions for use of required equipment, facilities, resources, and environment; clearly labeled grade, lesson, content, and other information to identify components; correct specifications for making instructional media and electronic programs work effectively.
- (2) **Materials support lesson planning, teaching, and learning:** Examples include overview of components and objectives; background for lectures and discussions; technical terminology, and reinforcement and review strategies; scope and sequence chart for activities and planning; sample lesson plans;

suggestions for individualized study, small-group and large-group presentations and discussions, school-to-work activities, field or laboratory experiences, safety procedures, and other extension activities; suggestions for integrating themes across the subject area or course curriculum and forming connections to other disciplines; and suggestions for parental and community involvement.

- (3) **Suggestions are provided for adapting instruction for varying needs:** Examples include alternative approaches to teaching, pacing, and options for varied delivery of instruction such as media, tools, equipment, and emerging technology; strategies for engaging all students, such as open-ended questions to stimulate thinking, journals, hands-on investigations, explorations, and multisensory approaches; suggestions for addressing common student difficulties or adapting to multiple learning styles; and alternative reteaching, enrichment, and remediation strategies.

The guide for science teachers should include a discussion of common misconceptions and misunderstandings and offer ways to detect, prevent or correct them. Observation and inquiry techniques that will help the teacher and the student assess student understanding should be provided.

- (4) **Guidelines and resources are provided on how to implement and evaluate instruction:** Examples include answers to work assignments, practice activities, and tests; sample projects or research results; suggestions for using learning tasks for classroom assessment; guidelines for alternative assessments, such as sample checklists, rubrics, peer or performance assessments, and portfolios.
- (5) **Resources are provided to use in classroom activities:** Examples include technology resources ; lists of resources and references, reading strategies, materials to use for displays or photocopies ,classroom management strategies and documentation on how to manage the entire instructional program; in-service workshops or consultation support from the publisher.

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## **B. ALIGNMENT OF INSTRUCTIONAL COMPONENTS**

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**All components of an instructional package must align with each other, as well as with the curriculum. See Florida Statutes 1006.29(4)**

All components of an instructional package—teacher’s edition and materials, student’s edition and materials, workbook, supplementary materials, and others—must be integrated and interdependent and must correspond with each other. For example, support materials in the teacher’s edition should align with student activities or assignments. They must match in content and progression of instructional activities.

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## C. ORGANIZATION OF INSTRUCTIONAL MATERIALS

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**The structure and format of materials must have enough order and clarity to allow students and teachers to access content and explicitly identify ideas and sequences. See Florida Statutes 1006.34(2)(a); 1006.34(2)(b)**

Providing an explicit and teachable structure can double the amount of information remembered. Clear organization allows students and teachers to discriminate important pieces of information through skimming, reading, or browsing.

Clear organization may be accomplished through a combination of features, but generally not through one feature alone.

**Access to content.** Some features help in searching and locating information, such as a table of contents; menu or map of content; directions on how to locate information or complete assignments; an index for quick reference; goals and/or objectives, outlines, lists, or checklists for major sections; bibliographies and lists of resources; glossaries for quick access to major terms; introductions, key concepts and themes, visual cues, illustrations, labeled examples, and labeled reviews or summaries.

**Visible structure and format.** At-a-glance features should signal the organization of content. The following features are desirable:

- chapter or unit titles and/or frames; headings and subheadings;
- typographic cues such as bold, italics or changes in size of type;
- divisions of content such as borders, boxes, circles, highlighting, visual signposts, icons, or color cues;
- diagrams, labels, and visuals placed near the related content; and numbering of pages and other components.

Objectives or a content outline may serve a similar purpose by introducing main ideas, providing guideposts to use in searching for key information, or serving as a checklist for self-assessment.

Certain types of brief narrative sections also contribute to clear organization. For example, the statement of a clear purpose with content organized around main ideas, principles, concepts, and logical relationships supports the unity and flow of information. Introductions also play a major role when they include anchoring ideas, a list of key points, or conceptual schemes such as metaphors. Summaries also can assist students in understanding the logical order of topics presented.

**Logical organization.** The pattern of organization of the content should be consistent and logical for the type of subject or topic. Patterns of organization may include comparison and contrast, time sequence, cause-effect or problem-solution-effect, concrete to abstract, introduction-review-extension (spiral structure), simple-to-complex, whole-part or part-whole, generalization-examples-review-practice, and conflict-inside view-structure.

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## D. READABILITY OF INSTRUCTIONAL MATERIALS

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**Narrative and visuals should engage students in reading or listening as well as in understanding of the content at a level appropriate to the students' abilities. See Florida Statutes 1006.31(e); 1006.34(2)(a); 1006.34(2)(b)**

**Language style.** Language style and visual features can influence the readability of materials. Yet, a popular tool for assessing readability has been the use of a *readability formula* of one type or another. These formulas tend to focus only on a few *countable* characteristics of language style such as the length of words, sentences, and/or paragraphs.

Other features are more important in establishing the readability of instructional materials, such as

- organized, coherent text
- language and concepts familiar to the student
- language that clarifies, simplifies, and explains information
- transition words such as “yet,” “also,” “next,” “for example,” “moreover,” or “however”
- other phrases that create logical connections
- words with concrete and specific images
- active rather than passive voice
- varied sentence structures and avoid both choppy sentences and unnecessary words and
- specific questions or directions to guide student attention to visuals or key information.

**Visual features.** Visual features that improve readability include

- print that is dark and clear, with good contrast
- paper with clean-cut edges without glare, or computer screens without glare
- margins wide enough on a page or screen to allow easy viewing of the text
- chunking text (Sentence ends on same page as it begins.)
- visuals that are relevant, clear, vivid, and simple enough for students to understand
- quantity of visuals suitable for the intended students—both lower ability students and higher ability students tend to require more visuals
- unjustified text (ragged on the right) rather than justified (lined up on the right)
- visuals that contain information in a form different from the text
- graphs, charts, maps, and other visual representations integrated at their point of use and
- colors, size of print, spacing, quantity, and type of visuals suitable for the abilities and needs of the intended students.

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## E. PACING OF CONTENT

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**The amount of content presented at one time or the pace at which it is presented must be of a size or rate that allows students to perceive and understand it. See Florida Statutes 1006.31(e); 1006.34(2)(a); 1006.34(2)(b)**

It is important that materials contain “bite-size” chunks or blocks of information. The chunks should not be so large, nor the pacing so fast, as to overwhelm students. Neither should the chunks be so small, nor the pacing so slow, as to bore them.

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## F. EASE OF USE OF MATERIALS

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**Both print and other media formats of instructional materials must be easy to use and replace and be durable enough for multiple uses over time. See Florida Statutes 1006.29(4); 1006.38(3)(a); 1006.34(2)(a); 1006.34(2)(b); 1006.38(5); 1006.38(6)(7)(8)(9)**

**Warranty.** The actual physical and technical qualities of materials should match the description contained in the publisher’s warranty.

**Use.** Materials must be designed for practical use in the classroom and school environments. They must be easy to identify and store. Teachers and students must be able to access and use the materials. Some of the factors influencing their ease of use include number of components, size of components, packaging, quality of materials, equipment requirements, and cost to purchase or replace components.

The best choice about weight, size, and number of volumes depends on several factors, such as the organization of the content, how well separate volumes may fit time periods for instruction, and the ages of students. Technical production requirements, such as page limits or different types of bindings, may lead to multiple volumes.

Examples of classroom use include repeated copying of consumable materials and repeated use of other materials by students over time. Students should be able to easily use the materials and take home, in a convenient form, most of the material they need to learn for the course.

Technology-rich resources should work properly without the purchase of additional software and run without error. Electronic media for student use should be encoded to prevent accidental or intentional erasure or modification. As with textbooks, electronic media should allow students to easily access and interact with them without extensive supervision or special assistance.

The physical and technical qualities of materials should match with the resources of the schools. Materials such as videos, software, CD-ROMs, Internet sites, and transparencies may serve instructional purposes well, but have little value unless they can be implemented with the school’s equipment. Publishers should include training, inservice, and consultation to help in effective use of the materials.

**Durability.** Students and teachers should be able to have materials that will be durable under conditions of expected use. For example, boxes, books, or other materials should not fall apart after normal classroom use. The packaging and form of materials should be flexible and durable enough for multiple uses over time. Durability includes considerations such as

- high-quality paper, ink, binding, and cover
- back, joints, body block, and individual pages
- worry-free technology that runs properly, with easy to hear, see, and control audio and visuals, and
- the publisher’s guarantee for replacement conditions and agreements for reproduction needed to effectively use the materials.

**Cost.** *Florida’s Commissioner of Education will consider the impact of cost in making final decisions.* Cost, while not a direct factor in ease of use, influences the ease with which materials can be obtained or replaced. The impact of cost can be complex to estimate. It requires considering the number of materials available at no additional cost with the purchase of the major program or text, the cost over the adoption period of several years, and the number of free materials to support implementation. Attractive features such as higher quality paper and visuals and greater use of color may escalate cost, without enhancing learning effectiveness.

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## REFERENCES FOR PRESENTATION FEATURES

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*For a complete list of references and citations, please refer to **Destination: Florida Classrooms—Evaluator’s Handbook**, or request a list of references from the Department of Education, Bureau of School Improvement.*



# Learning

The following features have been found to promote learning and apply to most types of learning outcomes.

<b>A. MOTIVATIONAL STRATEGIES</b>
<b>B. TEACHING A FEW “BIG IDEAS”</b>
<b>C. EXPLICIT INSTRUCTION</b>
<b>D. GUIDANCE AND SUPPORT</b>
<b>E. ACTIVE PARTICIPATION</b>
<b>F. TARGETED INSTRUCTIONAL STRATEGIES</b>
<b>G. TARGETED ASSESSMENT STRATEGIES</b>

The following sections describe the learning features expected for each of these priority areas.

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## **A. MOTIVATIONAL STRATEGIES**

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**Instructional materials must include features to maintain learner motivation. See Florida Statutes 1006.31(e); 1006.34(2)(a)(b); 1006.38(4)**

**Expectations.** Materials should positively influence the expectations of students.

Examples include:

- positive expectations for success
- novel tasks or other approaches to stimulate intellectual curiosity
- meaningful tasks related to student interests, cultural backgrounds, and developmental levels
- activities with relevance to the student’s life
- thought-provoking challenges such as paradoxes, dilemmas, problems, controversies, and questioning of traditional ways of thinking
- challenges that are neither too difficult to achieve nor so easy that students become bored
- hands-on tasks in a concrete context, and images, sounds, analogies, metaphors, or humorous anecdotes and
- a variety, including the opportunity for students to ask their own questions, set their own goals, and make other choices during learning.

**Feedback.** Materials should include informative and positive feedback on progress. Examples include:

- frequent checks on progress, including testing
- explanatory feedback with information about correctness of responses, how to avoid or correct common mistakes, and/or different approaches to use
- varied forms of assessments (self-assessment, peer assessment, and some learning tasks without formal assessments)

**Appearance.** Materials should have an appearance generally considered attractive to the intended students.

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## **B. TEACHING A FEW “BIG IDEAS”**

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**Instructional materials should thoroughly teach a few important ideas, concepts, or themes. See Florida Statutes 1006.31(e); 1006.34(2)(a)(b)**

**Focus.** Thoroughly teaching a few big ideas provides focus for the learner’s attention. It provides an organizing framework for integrating new information.

**Completeness.** The thorough teaching of a few big ideas may focus on developing a deeper and more complete understanding of the major themes of a discipline, the content of the subject area, relationships to other disciplines, and the thinking and learning skills required for achieving the specified learning outcomes.

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## **C. EXPLICIT INSTRUCTION**

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**Instructional materials must contain clear statements of information and outcomes. See Florida Statutes 1006.31(e); 1006.34(2)(a)(b)**

**Clarity of directions and explanations.** To support success in learning, instructional materials should include clear presentation and explanations of

- purposes, goals, and expected outcomes
- concepts, rules, information, and terms and
- models, examples, questions, and feedback.

For example, development of specific thinking skills requires an explicit statement of the particular *thinking skills* to be learned, along with the *strategies* or *steps to follow*. Explicit instruction for thinking skills might also involve showing *examples* of successful thinking contrasted with examples of poor thinking processes.

Similarly, the development of learning skills requires explicit directions about *when* and *how* to do activities such as notetaking, outlining, paraphrasing, abstracting and analyzing, summarizing, self-coaching, memory strategies, persistence, preview and questioning, reading and listening, reflecting, and reciting.

**Exclusion of ambiguity.** Instructional materials should avoid terms and phrases with ambiguous meanings, confusing directions or descriptions, and inadequate explanations.

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## D. GUIDANCE AND SUPPORT

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**Instructional materials must include guidance and support to help students safely and successfully become more independent learners and thinkers. See Florida Statutes 1006.31(e); 1006.34(2)(a)**

**Level.** The type of guidance and support that helps students to become more independent learners and thinkers is sometimes referred to as *scaffolding*. Scaffolding is a solid structure of support that can be removed after a job has been completed. As students gain proficiency, support can diminish, and students can encounter more complex, life-centered problems. Information and activities should provide guidance and support at the level that is needed—no more and no less. Too much can squelch student interest, and too little can lead to failure.

Guidance and support can be accomplished by a combination of the following features:

- organized routines
- advance organizers or models such as
  - (1) condensed outlines or overviews
  - (2) simplified views of information
  - (3) visual representations of new information during initial instruction
  - (4) sample problems
  - (5) questions to focus on key ideas or important features
  - (6) examples of solved problems
  - (7) explanations of how the problems were solved
  - (8) examples of finished products or sample performances
  - (9) analogies, metaphors, or associations to compare one idea to another
- prompts or hints during initial practice
- step-by-step instructions
- immediate and corrective feedback on the accuracy of performance of each step or task, on how to learn from mistakes, and on how to reach the correct answer
- simulations with features for realistic practice and
- opportunities for students to do research, and to organize and communicate results.

**Adaptability.** Guidance and support must be adaptable to developmental differences and various learning styles. For example, young children tend to understand concepts in concrete terms and over-generalize new concepts. Some students need more time, some tend to be more impulsive than reflective, some have trouble distinguishing relevant from irrelevant information, and some have better written than spoken language skills.

Approaches for developmental differences and learning styles of students, include

- a variety of *activities* such as
  - (1) structured and unstructured activities
  - (2) independent and group work
  - (3) teacher-directed and discovery learning

- (4) visual and narrative instruction
  - (5) hands-on activities
  - (6) open-ended activities
  - (7) practice without extrinsic rewards or grades
  - (8) simple, complex, concrete, and abstract examples
  - (9) variable pacing or visual breaks and
- a variety of *modalities* for the various learning styles of students, such as
    - (1) linguistic-verbal
    - (2) logical-mathematical
    - (3) musical
    - (4) spatial
    - (5) bodily-kinesthetic
    - (6) interpersonal
    - (7) intrapersonal
    - (8) naturalist.

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## E. ACTIVE PARTICIPATION OF STUDENTS

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**Instructional materials must engage the physical and mental activity of students during the learning process. See Florida Statutes 1006.31(e); 1006.34(2)(a)**

**Assignments.** Instructional materials should include organized activities of periodic, frequent, short assignments that are logical extensions of content, goals, and objectives.

**Student responses.** Assignments should include questions and application activities during learning that give students opportunities to respond. Active participation of students can be accomplished in a variety of ways. For example, information and activities might require students to accomplish the types of activities listed below.

- respond orally or in writing
- create visual representations (charts, graphs, diagrams, and illustrations)
- generate products
- generate their own questions or examples
- think of new situations for applying or extending what they learn
- complete discovery activities
- add details to big ideas or concepts from prior knowledge
- form their own analogies and metaphors
- practice lesson-related tasks, procedures, behaviors, or skills
- choose from a variety of activities

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## F. TARGETED INSTRUCTIONAL STRATEGIES

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**Instructional materials should include the strategies known to be successful for teaching the learning outcomes targeted in the curriculum requirements. See Florida Statutes 1006.31(e); 1006.34(2)(a)(b); 1003.42**

**Alignment.** Research has documented the strategies that effectively teach different types of learning outcomes. The learning strategies included in instructional materials should match the findings of research for the targeted learning outcomes. Different types of learning outcomes require different strategies. For example, a strategy for memorizing verbal information might be helpful, but it would not align with the strategies required for learning a concept or for learning how to solve a problem.

**Completeness.** Not only should strategies be aligned, but they also should be complete enough to effectively teach the targeted outcomes. For example, while the explanation of a problem-solving method or model would be appropriate, other strategies also would be necessary in order for students to learn how to resolve different types of problems.

**Research summary.** Researchers sometimes use different terms for some similar outcomes. For example, *thinking skills* and *metacognition* refer to some of the same types of skills. The following alphabetical list includes terms as they have appeared in research, even though some terms clearly overlap with each other.

- attitudes
- cognitive strategies
- comprehension/  
understanding
- concepts
- creativity
- critical thinking
- insight
- metacognition
- motor skills
- multiple intelligences
- problem solving
- procedural knowledge,  
principles, and rules
- scientific inquiry
- thinking skills
- verbal information,  
knowledge, or facts

The following section summarizes the research findings for each of these types of learning outcomes.

### ***Effective Teaching Strategies***

- **Teach *Attitudes***
  - Explain and show consequences of choices, actions, or behaviors.
  - Provide relevant human or social models that portray the desired choices, actions, or behaviors
- **Teach *Reading***
  - Provide appropriate reading strategies
  - Link instruction to effective reading
- **Teach *Cognitive Strategies***
  - Monitor and reflect upon the effectiveness of the reading process used.
  - Encourage and/or teach (a) organizing and summarizing information; (b) self-questioning, self-reflection, and self-evaluation; (c) reference skills; and (d) when and how to use these different skills.
- **Teach *Comprehension/Understanding***
  - Outline, explain, or visually show what will be read/learned in a simple form.
  - Explain with concrete examples, metaphors, questions, or visual representations.
  - Require students to relate new readings to previously learned information.
  - Require students to paraphrase or summarize new information as it is read.
  - Require students to construct a visual representation of main ideas (map, table, graphs, Venn diagram, etc.).
  - Give students opportunities to add details, explanations, or examples to basic information.
  - Require application of knowledge or information.
- **Teach *Concepts***
  - Provide clear understanding of each concept.
  - Point out important and features or ideas.
  - Point out examples of the concept, showing similarities and differences.
  - Include practice in organizing and classifying concepts.
  - Include a wide range of examples in a progressive presentation from simple to more complex examples.
  - Emphasize relationships between concepts.

- **Teach *Creativity***
  - Provide examples of creativity.
  - Include models, metaphors, and analogies.
  - Encourage novel approaches to situations and problems.
  - Show and provide practice in turning a problem upside down or inside out or changing perceptions.
  - Encourage brainstorming.
  - Include open -ended questions and problems.
  - Provide opportunities of ungraded, unevaluated creative performance and behavior.
  
- **Teach *Critical Thinking***
  - Create conflict or perplexity by using paradoxes, dilemmas, or other situations to challenge concepts, beliefs, ideas, and attitudes.
  - Focus on how to recognize and generate proof, logic, argument, and criteria for judgments.
  - Include practice in detecting mistakes, false analogies, relevant v. irrelevant issues, contradictions, discrepant events, and predictions.
  - Provide practice in drawing inferences from observations and making predictions from limited information.
  - Explain and provide practice in recognizing factors or biases that may influence choice and interpretations such as culture, experience, preferences, desires, interests, and passions, as well as systematic thinking.
  - Require students to explain how they form new conclusions and how and why present conclusions may differ from previous ones.
  
- **Teach *Inquiry***
  - Emphasize science as inquiry and include discovery activities.
  - Provide opportunities for experimental design.
  - Provide opportunities for critical thinking.
  - Facilitate the collection, display, and interpretation of data.
  - Promote careful observation, analysis, description, and definition.
  
- **Teach *Metacognition***
  - Explain different types of thinking strategies and when to use them.
  - Encourage self-evaluation and reflection.
  - Include questions to get students to wonder why they are doing what they are doing.
  - Guide students in how to do systematic inquiry, detect flaws in thinking, and adjust patterns of thinking.

- **Teach *Technology***
  - Provide a mental and physical model of desired performance.
  - Describe steps in the performance.
  - Provide practice with kinesthetic and corrective feedback (coaching).
- **Teach *Multiple Intelligences***
  - Verbal-linguistic dimension focuses on reasoning with language, rhythms, and inflections, such as determining meaning and order of words (stories, readings, humor, rhyme, and song).
  - Logical-mathematical dimension focuses on reasoning with patterns and strings of symbols (pattern blocks, activities to form numbers and letters).
  - Musical dimension focuses on appreciation and production of musical pitch, melody, and tone.
  - Spatial dimension focuses on activities of perceiving and transforming perceptions.
  - Bodily kinesthetic dimension focuses on use and control of body and objects.
  - Interpersonal dimension focuses on sensing needs, thoughts, and feelings of others.
  - Intrapersonal dimension focuses on recognizing and responding to one's own needs, thoughts, and feelings.
- **Teach *Problem Solving***
  - Assure student readiness by diagnosing and strengthening related concept, rule, and decision-making skills.
  - Provide broad problem-solving methods and models.
  - Include practice in solving different types of problems.
  - Begin with highly structured problems and then gradually move to less structured ones.
  - Use questions to guide thinking about problem components, goals, and issues.
  - Provide guidance in observing and gathering information, asking appropriate questions, and generating solutions.
  - Include practice in finding trouble, inequities, contradictions, or difficulties and in reframing problems.
- **Teach *Procedural Knowledge, Principles, and Rules***
  - Define context, problems, situations, or goals and appropriate procedures.
  - Explain reasons that procedures work for different types of situations.
  - Define procedures—procedures include rules, principles, and/or steps.
  - Provide vocabulary and concepts related to procedures.
  - Demonstrate step-by-step application of procedures.
  - Explain steps as they are applied.
  - Include practice in applying procedures.



- **Teach *Scientific Inquiry***
  - Explain process and methods of science as inquiry.
  - Explain and provide examples of (a) hypotheses formation, (b) valid procedures, (c) isolating variables, (d) interpretation of data, and (e) reporting findings
  - Encourage independent thinking and avoidance of dead ends or simplistic answers.
  - Require students to explain, verify, challenge, and critique the results of their inquiry.
- **Teach *Thinking Skills***
  - Introduce different types of thinking strategies.
  - Explain context or conditions of applying different strategies.
  - Provide definitions, steps, and lists to use in strategies.
  - Include examples of different types of thinking strategies, including how to think with open-mindedness, responsibility, and accuracy.
  - Emphasize persisting when answers are not apparent.
  - Provide practice in applying, transferring, and elaborating on thinking strategies.
  - Integrate metacognitive, critical, and creative-thinking skills.
- **Teach *Verbal Information, Knowledge, or Facts***
  - Provide a meaningful context to link new information and past knowledge.
  - Organize information into coherent groups or themes.
  - Use devices to improve memory such as mnemonic patterns, maps, charts, comparisons, groupings, highlighting of key words or first letters, visual images, and rhymes.
  - Identify main ideas, patterns, or relationships within information or sets of facts.

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## **G. TARGETED ASSESSMENT STRATEGIES**

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**Instructional materials should include assessment strategies that are known to be successful in determining how well students have achieved the targeted learning outcomes. See Florida Statutes 1006.31(e); 1006.34(2)(a)(b); 1006.38(4)**

**Alignment.** The assessment strategies should match the learner performance requirements for the types of learning outcomes that have been targeted for the subject matter, course, or course category. Different strategies are appropriate for assessing different types of learning outcomes. For example, a strategy for testing the acquisition of verbal information would not match the requirements for testing whether or not a student has learned a concept or learned how to solve a problem.

The term “assessment,” as used in this section, refers to testing or other strategies that assess student progress as a result of learning activities. The results of such assessment provide information about where to strengthen instruction. But it is very important to ask the right questions. If the type of question matches the type of learning outcome, then students and teachers have relevant information about learning progress.

**Completeness.** In addition to including assessment strategies that align with the performance requirements of the targeted learning outcomes, the strategies should be complete enough to effectively assess the learner’s performance with regard to the targeted outcome. For example, a test item that requires the student to state a rule does not assess whether or not the student knows how to *use* the rule.

**Research summary.** The research summary for effective assessment strategies for different types of learning outcomes follows the same alphabetical sequence as the previous section.

### *Effective Assessment Strategies*

- **Assess *Attitudes*:**
  - Provide various situations.
  - Require choices about behaviors.
- **Assess *Cognitive Strategies*:**
  - Provide learning tasks.
  - Require students to choose good strategies for learning and/or to learn new materials without teacher guidance.
  - Require students to discuss and explain methods used for various learning tasks.
- **Assess *Comprehension/Understanding*:**
  - Provide topic.
  - Require summary or restatement of information.
  - Provide new context.
  - Require application of information.
  - Provide several statements using words different from the initial teaching.
  - Require identification of the correct meaning.
- **Assess *Concepts*:**
  - Provide new examples and non-examples.
  - Require identification or classification into the correct categories.
- **Assess *Creativity*:**
  - Provide new problems to “turn upside down,” study, or resolve—these could be performances, presentations, or products.
  - Require products or solutions to fit within the particular functions and resources.

- Provide situations requiring novel approaches.
- **Assess *Critical Thinking*:**
  - Require students to evaluate information or results.
  - Require the use of analysis and research.
- **Assess *Insight*:**
  - Provide situations for inquiry and discovery.
  - Provide situations for manipulation.
- **Assess *Metacognition*:**
  - Provide different situations or problems.
  - Require students to identify types of thinking strategies to analyze and evaluate their own thinking.
- **Assess *Multiple Intelligences*:**
  - Provide situations in the modality that is targeted, e.g., verbal-linguistic, musical, or other modality.
  - Provide situations in several modalities, to allow choice
  - Require performance in the targeted or chosen modalities.
- **Assess *Motor Skills*:**
  - Provide situations and resources for performance of the skill.
  - Include checklist for evaluation.
- **Assess *Problem Solving*:**
  - Require students to choose types of problem-solving strategies for different situations.
  - Require solutions to structured and unstructured, simple and complex problems.
- **Assess *Procedural Knowledge, Principles, and Rules*:**
  - Provide situations that require students to recognize the correct use of procedures, principles, or rules with routine problems.
  - Require students to state procedures, principles, or rules.
  - Require students to choose which procedures, principles, or rules to apply in different situations.
  - Provide situations that require students to demonstrate the correct use of procedures, principles, or rules with routine problems.
- **Assess *Scientific Inquiry*:**
  - Provide situations or problems that require speculation, inquiry, and hypothesis formation.
  - Provide research, hands-on activities, and conclusions.

- **Assess *Thinking Skills*:**
  - Require students to summarize different types of thinking strategies.
  - Provide situations that require students to choose the best type of thinking strategy to use.
  - Require students to detect instances of open- v. closed-mindedness.
  - Require students to detect instances of responsible v. irresponsible and accurate v. inaccurate applications of thinking strategies.
  - Provide situations that require the student's persistence in order to discover or analyze information to obtain answers to specific questions.
  - Require students to apply specific thinking strategies to different real-world situations.
  
- **Assess *Verbal Information, Knowledge, or Facts*:**
  - Require students to recall information.
  - Require students to restate information
  - Require students to understand information.

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## REFERENCES FOR LEARNING FEATURES

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*For a complete list of references and citations, please refer to **Destination: Florida Classrooms—Evaluator’s Handbook**, or request a list of references from the Department of Education, Bureau of School Improvement.*

# Criteria for Evaluation

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The instructional materials adoption process must be fair to all publishers who take the time and expense to submit their materials. Applying evaluation criteria consistently to each submission assures that the materials will be judged fairly.

Regardless of format or technology, effective materials have certain characteristics in common, and the basic issues, important for the evaluation of instructional materials, apply to all subject areas and all formats. These issues are addressed in Florida's list of priorities and the criteria as detailed in the previous pages of this document. What follows is the evaluation instrument used by adoption committee members. Evaluators will use the criteria-based instrument to engage in systematic reflection of the processes they follow and decisions they make about the quality of materials submitted by publishers.

The extensive research base and review processes used to identify these criteria establish their validity as an integral part of Florida's instructional materials adoption system. Applying these criteria consistently to each submission helps assure that the materials submitted by publishers will be judged fairly.

# STATE COMMITTEE EVALUATION FORM

**DIRECTIONS:** Use this form along with the criteria in the instructional materials specifications to independently review each submission.

As part of your independent review for each of the criteria, rate and comment on how well the submission satisfies the requirements. Possible ratings are as follows: ■ THOROUGHLY, ■ HIGHLY, ■ ADEQUATELY, ■ MINIMALLY, or ■ NOT AT ALL.

At your state committee meeting, you will discuss your review and agree on the summary of RATINGS, COMMENTS, and the OVERALL EVALUATION for each submission. Your committee will then VOTE for or against adoption and will make suggestions for notations to include in the Florida Catalog of Instructional Materials. Your committee's decisions will appear on one Committee Consensus Questionnaire.

IDENTIFICATION OF SUBMISSION
Subject Area Committee
Course for Which Recommended
Name of Publisher
Title of Submission

## ☑ CONTENT

### A. ALIGNMENT WITH CURRICULUM REQUIREMENTS

*Content aligns with the state's standards for the subject, grade level, and learning outcomes.*

THOROUGHLY    
  HIGHLY    
  ADEQUATELY    
  MINIMALLY    
  NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** (Please give specific examples with page numbers. Extra space for notations is provided on page 8.)

✓ CORRELATIONS \_\_\_\_\_

✓ SCOPE \_\_\_\_\_

✓ COMPLETENESS \_\_\_\_\_

### B. LEVEL OF TREATMENT OF CONTENT

*The level of complexity or difficulty of content is appropriate for the standards, student abilities and grade level, and time periods allowed for teaching.*

THOROUGHLY    
  HIGHLY    
  ADEQUATELY    
  MINIMALLY    
  NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** (Please give specific examples with page numbers. Extra space for notations is provided on page 8.)

✓ OBJECTIVES \_\_\_\_\_

✓ STUDENTS \_\_\_\_\_

✓ TIME \_\_\_\_\_

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**C. EXPERTISE FOR CONTENT DEVELOPMENT**

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*Expertise in the content area and in education of the intended students is reflected in the authors, reviewers, and sources that contributed to development of the materials.*

THOROUGHLY     HIGHLY     ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

✓ AUTHORSHIP \_\_\_\_\_

✓ SOURCES \_\_\_\_\_

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**D. ACCURACY OF CONTENT**

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*Content is accurate in historical context and contemporary facts and concepts.*

THOROUGHLY     HIGHLY     ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

✓ OBJECTIVITY \_\_\_\_\_

✓ REPRESENTATIVENESS \_\_\_\_\_

✓ CORRECTNESS \_\_\_\_\_

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**E. CURRENTNESS OF CONTENT**

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*Content is up-to-date for the academic discipline and the context in which the content is presented.*

THOROUGHLY     HIGHLY     ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

✓ DATES OR EDITIONS \_\_\_\_\_

✓ CONTEXT \_\_\_\_\_

✓ INFORMATION \_\_\_\_\_

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**F. AUTHENTICITY OF CONTENT**

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*Content includes problem-centered connections to life in a context that is meaningful to students.*

THOROUGHLY     HIGHLY     ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

✓ LIFE CONNECTIONS \_\_\_\_\_

✓ INTERDISCIPLINARY TREATMENT \_\_\_\_\_

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**G. MULTICULTURAL REPRESENTATION**

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*Portrayal of gender, ethnicity, age, work situations, and social groups includes multicultural fairness and advocacy.*

- THOROUGHLY     HIGHLY             ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

- ✓ MULTICULTURAL FAIRNESS \_\_\_\_\_  
✓ MULTICULTURAL ADVOCACY \_\_\_\_\_

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**H. HUMANITY AND COMPASSION**

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*Portrayal of the appropriate care and treatment of people and animals includes compassion, sympathy, and consideration of their needs and values and excludes hard-core pornography and inhumane treatment.*

- THOROUGHLY     HIGHLY             ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

- ✓ INCLUSION OF COMPASSION \_\_\_\_\_  
✓ EXCLUSION OF INHUMANITY \_\_\_\_\_

**SUMMARY ANALYSIS FOR CONTENT**

**In general, how well does the submission satisfy *CONTENT* requirements?**

- THOROUGHLY     HIGHLY             ADEQUATELY     MINIMALLY     NOT AT ALL

**PRESENTATION**

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**A. COMPREHENSIVENESS OF STUDENT AND TEACHER RESOURCES**

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*Resources are complete enough to address the targeted learning outcomes without requiring the teacher to prepare additional teaching materials for the course.*

- THOROUGHLY     HIGHLY             ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

- ✓ STUDENT RESOURCES \_\_\_\_\_  
✓ TEACHER RESOURCES \_\_\_\_\_



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**B. ALIGNMENT OF INSTRUCTIONAL COMPONENTS**

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*All components of an instructional package align with each other, as well as with the curriculum.*

- THOROUGHLY     HIGHLY     ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issue?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

- ✓ ALIGNMENT \_\_\_\_\_

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**C. ORGANIZATION OF INSTRUCTIONAL MATERIALS**

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*The structure and format of materials have enough order and clarity to allow students and teachers to access content and explicitly identify ideas and sequences.*

- THOROUGHLY     HIGHLY     ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

- ✓ ACCESS TO CONTENT \_\_\_\_\_

- ✓ VISIBLE STRUCTURE AND FORMAT \_\_\_\_\_

- ✓ LOGICAL ORGANIZATION \_\_\_\_\_

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**D. READABILITY OF INSTRUCTIONAL MATERIALS**

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*Narrative and visuals will engage students in reading or listening as well as understanding of the content.*

- THOROUGHLY     HIGHLY     ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

- ✓ LANGUAGE STYLE \_\_\_\_\_

- ✓ VISUAL FEATURES \_\_\_\_\_

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**E. PACING OF CONTENT**

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*The amount or content presented at one time or the pace at which it is presented is of a size or rate that allows students to perceive and understand it.*

- THOROUGHLY     HIGHLY     ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issue?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

- ✓ PACING \_\_\_\_\_

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**F. EASE OF USE OF MATERIALS**

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*Both print and other media formats of instructional materials are easy to use and replace and are durable enough for multiple uses over time.*

THOROUGHLY     HIGHLY             ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** (Please give specific examples with page numbers. Extra space for notations is provided on page 8.)

✓ WARRANTY \_\_\_\_\_

✓ USE \_\_\_\_\_

✓ DURABILITY \_\_\_\_\_

**SUMMARY ANALYSIS FOR PRESENTATION**

**In general, how well does the submission satisfy *PRESENTATION* requirements?**

THOROUGHLY     HIGHLY             ADEQUATELY     MINIMALLY     NOT AT ALL

**LEARNING**

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**A. MOTIVATIONAL STRATEGIES**

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*Instructional materials include features to maintain learner motivation.*

THOROUGHLY     HIGHLY             ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** (Please give specific examples with page numbers. Extra space for notations is provided on page 8.)

✓ EXPECTATIONS \_\_\_\_\_

✓ FEEDBACK \_\_\_\_\_

✓ APPEARANCE \_\_\_\_\_

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**B. TEACHING A FEW “BIG IDEAS”**

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*Instructional materials thoroughly teach a few important ideas, concepts, or themes.*

THOROUGHLY     HIGHLY             ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** (Please give specific examples with page numbers. Extra space for notations is provided on page 8.)

✓ FOCUS \_\_\_\_\_

✓ COMPLETENESS \_\_\_\_\_

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**C. EXPLICIT INSTRUCTION**

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*Instructional materials contain clear statements of information and outcomes.*

THOROUGHLY     HIGHLY             ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

✓ CLARITY OF DIRECTIONS AND EXPLANATIONS \_\_\_\_\_

✓ EXCLUSIONS OF AMBIGUITY \_\_\_\_\_

---

**D. GUIDANCE AND SUPPORT**

---

*Instructional materials include guidance and support to help students safely and successfully become more independent learners and thinkers.*

THOROUGHLY     HIGHLY             ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

✓ LEVEL \_\_\_\_\_

✓ ADAPTABILITY \_\_\_\_\_

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**E. ACTIVE PARTICIPATION OF STUDENTS**

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*Instructional materials will engage the physical and mental activity of students during the learning process.*

THOROUGHLY     HIGHLY             ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

✓ ASSIGNMENTS \_\_\_\_\_

✓ STUDENT RESPONSES \_\_\_\_\_

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**F. TARGETED INSTRUCTIONAL STRATEGIES**

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*Instructional materials include the strategies known to be successful for teaching the learning outcomes targeted in the curriculum requirements.*

THOROUGHLY     HIGHLY             ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

✓ ALIGNMENT \_\_\_\_\_

✓ COMPLETENESS \_\_\_\_\_

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**G. TARGETED ASSESSMENT STRATEGIES**

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*Instructional materials include assessment strategies known to be successful in determining how well students have achieved learning outcomes targeted in the curriculum requirements.*

THOROUGHLY     HIGHLY     ADEQUATELY     MINIMALLY     NOT AT ALL

**What COMMENTS, if any, do you have about the strengths or concerns for the following issues?** *(Please give specific examples with page numbers. Extra space for notations is provided on page 8.)*

✓ ALIGNMENT \_\_\_\_\_

✓ COMPLETENESS \_\_\_\_\_

**SUMMARY ANALYSIS FOR LEARNING**

**In general, how well does the submission satisfy *LEARNING* requirements?**

THOROUGHLY     HIGHLY     ADEQUATELY     MINIMALLY     NOT AT ALL

**OVERALL EVALUATION**

**1. If given responsibility for teaching the course, would you choose these materials for classroom use?**

**⊖ YES    ⊖ NO**

**2. What notations do you think should be included in the Catalog?**

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**Committee Member Signature**

**Date**

# REQUIREMENTS FOR BRAILLE TEXTBOOK PRODUCTION

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## INSTRUCTIONS FOR PREPARING COMPUTER DISKETTES AND CDs REQUIRED FOR AUTOMATED BRAILLE TEXTBOOK PRODUCTION

### STATUTORY AUTHORIZATION

Chapter 1003.55(5), Florida Statutes, states that, "...any publisher of a textbook adopted pursuant to the state instructional materials adoption process shall furnish the Department of Education with a computer file in an electronic format specified by the Department at least 2 years in advance that is readily translatable to Braille and can be used for large print or speech access. Any textbook reproduced pursuant to the provisions of this subsection shall be purchased at a price equal to the price paid for the textbook as adopted. The Department of Education shall not reproduce textbooks obtained pursuant to this subsection in any manner that would generate revenues for the department from the use of such computer files or that would preclude the rightful payment of fees to the publisher for use of all or some portion of the textbook."

### OBJECTIVE

Diskettes or CDs are needed to accelerate the production of textbooks in Braille and other accessible formats through the use of translation software. Some embedded publisher formatting commands help speed the conversion of English text to Braille or other accessible formats. Therefore, the objective of these instructions is to prompt publishers to provide textbook data in a format which will be useful to Braille and other accessible format producers while at the same time allowing each publisher the flexibility of using existing composition or typesetting systems. Publishers may produce diskettes or CDs in one of two formats for text and one of three formats for graphics, as shown in the specifications below.

By April 1, 1998, publishers of adopted student textbooks for literary subjects must be able to provide the computer diskettes or CDs **UPON REQUEST**. Publishers shall provide nonliterary subjects when technology becomes available for the conversion of nonliterary materials to the appropriate format.

The requested computer diskettes shall be provided to the Florida Instructional Materials Center for the Visually Impaired (FIMC), 4210 W. Bay Villa Avenue, Tampa, Florida 33611; (813) 837-7826; in Florida WATS (800) 282-9193 or (813) 837-7979 (FAX). The center will contact each publisher of an adopted textbook and provide delivery instructions.

## SPECIFICATIONS

FORMAT	ANSI NISO DAISY Standard for XML (as adopted by National File Format technical panel) Word Document in text format JPEG, TIFF, or PICT for graphics
OPERATING SYSTEM	Windows
MEDIA SIZE	3.5 diskette or CD
LABELING	Sequential Number/ISBN Book Title File Name Name of Publisher Name of Typesetting Company/Contact Format Option and Version Copyright Date Wording such as: "All rights reserved. As described in Chapter 1003.55(5), Florida Statutes, no use may be made of these diskettes other than the creating of a Braille, Large Print, or Recorded version of the materials contained on this diskette or CD for students with visual impairments in the State of Florida."
REQUIRED CONTENTS	Title Page List of Consultants and Reviewers Table of Contents All textbook Chapters All Appendices All Glossaries Indexes
FILE STRUCTURE	Each chapter of a textbook will be formatted as a separate file.

## SPECIFICATIONS CONTINUED

### FILE LIST

A separate file listing the structure of the primary files must be provided. This file should be labeled **DISKLIST TEXT**. In addition, all special instructions (e.g., merging of materials kept in a separate file) should be noted in this file.

### LOCATION OF SPECIAL DATA

Marginal notes, footnotes, captions, and other special items must be placed consistently within each text file.

### CORRECTIONS AND CHANGES

A conscientious effort should be made to update files to exactly duplicate the adopted printed version of the textbook (including corrections and changes). If this cannot be accomplished in a timely and cost effective manner, the publisher will coordinate with the FIMC supervisor and provide to the supervisor one set of marked tearsheets of all corrections and changes not included in the files.