THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA
OFFICE OF THE SUPERINTENDENT

TUESDAY, MARCH 29, 2022 5:00 PM
Kathleen C. Wright Building
600 Southeast Third Avenue, Board Room
Fort Lauderdale, Florida 33301

(Or Immediately Following Workshop)

AGENDA FOR PUBLIC HEARING - MATH ADOPTION

PUBLIC HEARING - MATH ADOPTION CAN BE VIEWED VIA LIVE STREAM OVER THE INTERNET ON THE DISTRICT'S WEBSITE (www.browardschools.com).

Public Hearing meetings will be held with Board Members being physically present and via electronic communication. This advertised Public Hearing Meeting will be accessible virtually. Public participation will be accepted on all agenda items in the following manners: **Any person may present live comments by attending the KC Wright Administration Building's Board Room at 600 Southeast Third Avenue, Fort Lauderdale, FL 33301. Individuals are strongly encouraged to wear a face covering for their nose and mouth, however, it is not required (*individuals are responsible for providing their own mask*), and remain at least three (3) feet from other attendees upon arrival as they enter the KCW Building and until his/her departure. An online portal has also been developed to provide public comments to any of the agenda items for all scheduled Special School Board Meetings by accessing the following link: https://bit.ly/3LQZYXk. Anonymous comments will not be accepted; therefore, each written comment (400-word maximum) must include the person's name and address.** Pursuant to School Board Policy 1100A, the public may speak a total of fifteen (15) minutes during any single meeting, not including committee reports. Additionally, in the event a large group of individuals (more than twenty (20)) sign-up to speak on any one agenda item, the Board Chair has the authority to adjust the time limit for each speaker to speak less than the three (3) minutes (*which is approximately 400 words*) usually permitted or limit the overall time speakers will be heard on that item.

CALL TO ORDER

PLEDGE OF ALLEGIANCE TO THE FLAG OF THE UNITED STATES OF AMERICA

ADDED/CHANGED ITEMS

CLOSE AGENDA

PURPOSE OF MEETING

For The School Board of Broward County, Florida to present adoption of the recommended instructional materials.

SUPERINTENDENT'S RECOMMENDATION(S)

1. **Instructional Materials Hearing for Mathematics Adoption (K-12)**
   Hearing to present adoption of the recommended instructional materials for Mathematics (K-12) and receive public feedback.

Executive Summary.pdf
Math Adoption Public Hearing

ADJOURNMENT

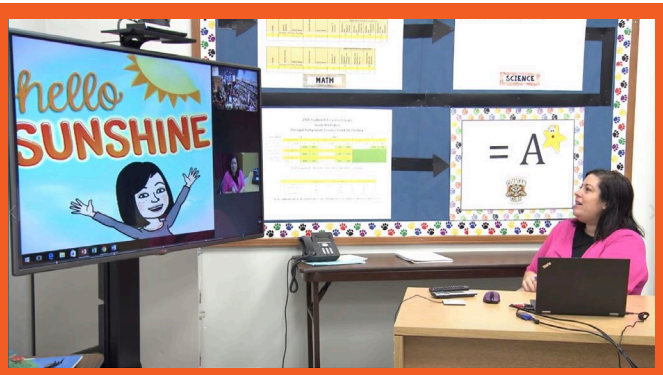
EXECUTIVE SUMMARY

Below is an Executive Summary for the recommended instructional materials for the 2022-2023 K-12 Mathematics Adoption as required by Florida Statute 1006.40(5).

Agenda Item	Instructional Materials Mathematics Adoption (K-12)
Requested Action	Approve the adoption of the recommended instructional materials for Mathematics (K-12). The following courses are affected by the programs recommended by the Mathematics Instructional Review Committees: <u>Grades K-5</u> • Mathematics <u>Grades 6-8</u> • M/J Grade 6 Mathematics (Regular & Accelerated) • M/J GEM Math • M/J Grade 7 Mathematics (Regular & Accelerated) • M/J Grade 8 Pre-Algebra • M/J Foundational Skills in Mathematics 6-8 <u>Grades 9-12</u> • Algebra 1, (Regular & Honors), 1A, 1B • Geometry (Regular & Honors) • Algebra 2 (Regular & Honors) • Pre-Calculus Honors • Calculus Honors • Foundational Skills in Mathematics 9-12 • Mathematics for Data and Financial Literacy (Regular & Honors) • Mathematics for College Algebra • Mathematics for College Statistics • Mathematics for College Liberal Arts • Discrete Mathematics Honors • Probability & Statistics with Applications Honors <u>Advanced Placement</u> • Advanced Placement Calculus AB • Advanced Placement Calculus BC • Advanced Placement Statistics
Funding Source	Approximately $34,101,468.00, will be spent during the five (5) years of the Mathematics Adoption. Pending fund availability from the State categorical instructional materials

	allocations. These funds will be placed in the Innovative Learning budget.
Service Locations	All schools serving Mathematics in grades K-12.
Managing Department/School	Innovative Learning
Source of Additional Information	Dr. Nicole Mancini, Chief Academic Officer (Task Assigned), 754-321-2618 Dr. Sherri Wilson, Director, Innovative Learning, 754-321-2640 Florida Statute 1006.40(5) Instructional Materials Adoption PowerPoint Current BCPS Instructional Materials Policies
Project Description	Florida Statute 1006.40(5) requires multiple steps in the approval process to ensure input from all stakeholders. These include: • Online access to student editions of the committee recommended instructional materials for 20 days. • An open, noticed Public Hearing during which the public may comment on the recommended instructional materials (March 29, 2022). • An open, noticed School Board Meeting to approve an annual instructional materials plan to identify any instructional materials that will be purchased through the District's instructional materials review process (April 19, 2022). If necessary, a second Public Hearing, chaired by a Hearing Officer, to address any formal objections returned to the District regarding the adoption of these instructional materials shall be held at least 30 days following approval by the Board (no sooner than May 19, 2022).
Impact Statement	To evaluate the acquisition and implementation of these instructional materials, the Office of Academics will: • Ensure that all schools have adequate instructional materials via the Instructional Materials Management System and correlation of book orders with course enrollments via the Student Information System. • Ensure effective implementation of these materials through professional development and track participation in opportunities offered through the District's Professional Development Management System. • Ensure that all digital components of the adopted instructional materials are integrated into our digital ecosystem for student use anytime, anywhere there is Internet access.







Office of Academics
Learning Division

Instructional Materials Mathematics Adoption (K-12)

School Board Public Hearing
March 29, 2022

Presented By:

Dr. Sherri Wilson, Director Innovative Learning	Victoria Saldala, Support Director Elementary Learning	Guy Barmoha, Director Secondary Learning
Martina Blanco, Instructional & Digital Materials Analyst Innovative Learning		

Established 1915
BROWARD
County Public Schools

K-12 B.E.S.T. Standards for ELA & Mathematics

- On January 31, 2019, Governor DeSantis issued Executive Order 19-32, "Commitment to Eliminating Common Core, Ensuring High-Quality Academic Standards and Raising the Bar for Civic Literacy."
- On February 12, 2020, the State Board of Education amended Rule 6A-1.09401, Florida Administrative Code, Student Performance Standards, to adopt the B.E.S.T. Standards for English language arts (ELA) and Mathematics for grades K-12.
- The instructional materials adoption timeline was revised which resulted in a 2-year gap for English Language Arts (ELA), a 3-year gap for Mathematics, a 1-year gap for Social Studies and a 1-year gap for Science implementation of new course materials.

Instructional Materials Plan 2022-2023
Math Adoption

Course Name	Vendor	Grade Levels	Cost of Adoption
Mathematics	Savvas Learning Company	K-5	$28,700,355.00
M/J Grade 6 Mathematics (Regular & Accelerated) M/J GEM Math M/J Grade 7 Mathematics (Regular & Accelerated) M/J Grade 8 Pre-Algebra M/J Foundational Skills in Mathematics 6-8 Algebra 1 (Regular & Honors) Geometry (Regular & Honors) Algebra 2 (Regular & Honors)		6-12	
Pre-Calculus Honors	National Geographic Learning Cengage	9-12	$858,776.00
Calculus Honors	National Geographic Learning Cengage	9-12	$115,290.00
Foundational Skills in Mathematics 9-12	McGraw-Hill Education	9-12	$102,470.00
Mathematics for Data and Financial Literacy (Regular & Honors)	National Geographic Learning Cengage	9-12	$351,120.00

Instructional Materials Plan 2022-2023
Math Adoption

Course Name	Vendor	Grade Levels	Cost of Adoption
Mathematics for College Algebra	National Geographic Learning Cengage	9-12	$567,910.00
Mathematics for College Statistics	Savvas Learning Company	9-12	$1,023,953.00
Mathematics for College Liberal Arts	Savvas Learning Company	9-12	$989,653.00
Discrete Mathematics Honors	National Geographic Learning Cengage	9-12	$96,200.00
Probability & Statistics with Applications Honors	Bedford, Freeman & Worth	9-12	$295,741.00
Freight	Florida School Book Depository		$1,000,000.00
Total			**$34,101,468.00**

Instructional Materials Plan 2022-2023
Math Adoption

Course Name	Vendor	Grade Levels	Cost of Adoption
A.P. Calculus AB*	National Geographic Learning Cengage	11-12	$219,600.00
A.P. Calculus BC*	National Geographic Learning Cengage	11-12	$73,200.00
A.P. Statistics*	Bedford, Freeman & Worth	11-12	$138,429.00

**Instructional Materials for A.P. courses will be purchased by participating schools. The cost of A.P. course materials are not included in total. Final costs may vary due to final purchase requirements of the District.*

Instructional Materials Plan 2022-2023

Florida Statute 1006.40(5) requires the following steps in approving recommended instructional materials for use district-wide.

- Public online access to student editions of the District recommended instructional materials.
- An open and noticed Public Hearing.
- An open and noticed board meeting to approve an annual instructional materials plan.

Instructional Materials Plan 2022-2023

Instructional Materials Adoption Process

1. Use a review tool that prioritizes content and standards-alignment.
2. Provide a rigorous and transparent reviewer selection process.
3. Train reviewers to have a top-of-the-class grasp of the instructional shifts and how to apply the tool to materials.
4. Inform stakeholders about our process and the rationale behind our decisions.
5. Manage publishers to emphasize the District's commitment to high quality content, standards alignment, and meeting IT technical requirements.

Instructional Materials Plan 2022-2023

K-8 Mathematics Courses for Adoption

- Mathematics (Grades K-5)
- M/J Grade 6 Mathematics (Regular & Accelerated) (Grade 6)
- M/J GEM Math (Grade 6)
- M/J Grade 7 Mathematics (Regular & Accelerated)(Grade 7)
- M/J Grade 8 Pre-Algebra (Grade 8)
- M/J Foundational Skills in Mathematics 6-8 (Grades 6-8)

Instructional Materials Plan 2022-2023

9-12 Mathematics Courses for Adoption

- Algebra 1 (Regular & Honors)
- Geometry (Regular & Honors)
- Algebra 2 (Regular & Honors)
- Pre-Calculus Honors
- Calculus Honors
- Foundational Skills in Mathematics 9-12
- Mathematics for Data and Financial Literacy (Regular & Honors)
- Mathematics for College Algebra
- Mathematics for College Statistics
- Mathematics for College Liberal Arts
- Discrete Mathematics Honors
- Probability & Statistics with Applications Honors
- A.P. Calculus AB
- A.P. Calculus BC
- A.P. Statistics

Instructional Materials Plan 2022-2023

Course Name	Grade Levels	Vendor	Instructional Material	Corresponding Appendices
Mathematics M/J Grade 6 Mathematics (Regular & Accelerated) M/J GEM Math M/J Grade 7 Mathematics (Regular & Accelerated) M/J Grade 8 Pre-Algebra M/J Foundational Skills in Mathematics 6-8	K-8	Savvas Learning Company	enVision Florida B.E.S.T. Mathematics	Appendix A
Algebra 1 (Regular & Honors) Geometry (Regular & Honors) Algebra 2 (Regular & Honors)	9-12	Savvas Learning Company	enVision Florida B.E.S.T. Mathematics	Appendix B
Pre-Calculus Honors	9-12	National Geographic Learning Cengage	PreCalculus with Limits	Appendix C
Calculus Honors A.P. Calculus AB A.P. Calculus BC	9-12	National Geographic Learning Cengage	Calculus for AP + WebAssign	Appendix D

Instructional Materials Plan 2022-2023

Course Name	Grade Levels	Vendor	Instructional Material	Corresponding Appendices
Foundational Skills in Mathematics 9-12	9-12	McGraw-Hill Education	ALEKS	Appendix E
Mathematics for Data and Financial Literacy (Regular & Honors)	9-12	National Geographic Learning Cengage	Financial Algebra: Advanced Algebra	Appendix F
Mathematics for College Algebra	9-12	National Geographic Learning Cengage	College Prep Algebra	Appendix G
Mathematics for College Statistics	9-12	Savvas Learning Company	Elementary Statistics	Appendix H
Mathematics for College Liberal Arts	9-12	Savvas Learning Company	Thinking Mathematically	Appendix I
Discrete Mathematics Honors	9-12	National Geographic Learning Cengage	Discrete Mathematics	Appendix J
Probability & Statistics with Applications Honors	9-12	Bedford, Freeman & Worth	Statistics and Probability	Appendix K
A.P. Statistics	11-12	Bedford, Freeman & Worth	The Practice of Statistics	Appendix L

Appendix A



Mathematics (Grades K-5)
M/J Grade 6 Mathematics **(Regular & Accelerated)**
M/J GEM Math
M/J Grade 7 Mathematics **(Regular & Accelerated)**
M/J Grade 8 Pre-Algebra
enVision Florida B.E.S.T. Mathematics
Savvas Learning Company

- enVision Florida B.E.S.T. Mathematics for Grades K-8 provides a wide variety of assessment and differentiation options with the resources teachers need to encourage and challenge students of all learning levels.
- enVision Florida B.E.S.T. Mathematics captures the simplicity, practicality, and specificity of the new standards, going beyond just basic alignment.
- Students move from concrete models to visual examples of abstract concepts. Assessment and differentiation support individual students' needs.

Appendix A continued

- enVision Florida B.E.S.T. Mathematics helps teach Florida's B.E.S.T. Standards with confidence and engage students.
- The new B.E.S.T. Standards provide a vision and a roadmap that prepare all students in Florida for success. enVision Florida B.E.S.T. Mathematics captures the simplicity, practicality, and specificity of the new standards, going beyond just basic alignment.
- Built for Florida: First-class standards alignment in both instruction and assessment.
- Intentionally Designed: The pedagogical approach and flexible resources necessary to support in-person and digital learning.
- Student Centered: All students are invited to engage in meaningful mathematics.

Appendix A continued

- enVision Florida B.E.S.T. Mathematics for Grades K-8 includes:
  - Cross Benchmark Connections: Connections are infused within and across topics to help students see content connections across the grade.
  - Consistent Progression: Lessons focus on benchmarks within standards. Topics focus on standards within strands, taking areas of emphasis into account. Standards are revisited in more than one topic, keeping connected ideas together.
  - Targeted Benchmark Instruction, Benchmark Progressions, Student-Led Exploration, Language Support, Independent Practice and Problem Solving, Interactive Practice Buddy (Grades K-2), Practice Buddy MathXL® for School (Grades 3-5), MathXL® for School (Grades 6-8), Targeted Intervention, Activity Centers, and much more.

Appendix B



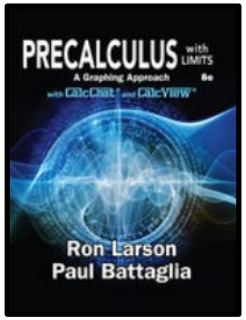
Algebra 1 **(Regular & Honors)**
Geometry **(Regular & Honors)**
Algebra 2 **(Regular & Honors)**
enVision Florida B.E.S.T. Mathematics
Savvas Learning Company

- enVision Florida B.E.S.T. A | G | A provides a wide variety of assessment and differentiation options with the resources you need to encourage and challenge students of all learning levels.
- enVision Florida B.E.S.T. A | G | A helps teach mathematics through problem solving. Multiple examples support a balanced pedagogy: Conceptual Understanding, Proof, Skill, and Application.
- Mathematical Modeling in 3 Acts builds students' confidence to think mathematically and solve problems on their own. Act 1: The Hook, Act 2: The Model and Act 3: The Resolution.

Appendix B continued

- enVision Florida B.E.S.T. A | G | A features a uniquely balanced exercise set. Meet the rigor of Florida's B.E.S.T. Standards with assessment practice in every lesson.
- enVision Florida B.E.S.T. A | G | A provides both a fully adaptive system for Response to Intervention and a library of resources to support a wide range of students.
- Lesson-opening explorations foster the development of conceptual understanding through a problem-solving experience.
- Personalized and adaptive learning and practice through MathXL® for School and Savvy Adaptive Practice encourages students to build their mathematical understanding and demonstrate proficiency.
- Desmos interactive tools engage students in modeling, quadratic relationships, inequalities, linear equations, exponential functions, and more.

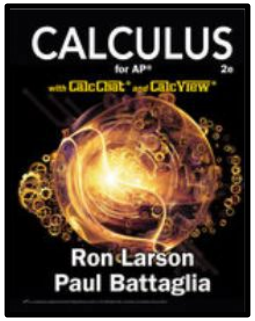
Appendix C



Pre-Calculus
PreCalculus with Limits: A Graphing Approach + WebAssign
National Geographic Learning Cengage

- Precalculus with Limits: A Graphing Approach provides quality and quantity of exercises, combined with interesting applications and innovative resources, make teaching easier and help Florida students succeed.
- The program achieves accessibility through careful writing and design--including examples with detailed solutions that begin and end on the same page, which maximizes readability.
- Side-by-side solutions show algebraic, graphical, and numerical representations of the mathematics and support a variety of learning styles.
- WebAssign, the programs powerful homework engine, engages students with dynamic assignments, interactive supports, and a complete eBook.

Appendix D



Calculus Honors
A.P. Calculus AB
A.P. Calculus BC
Calculus for AP + WebAssign
National Geographic Learning Cengage

- Calculus for AP® is designed specifically to support the course frameworks for AP® Calculus AB and AP® Calculus BC and helps students develop mathematical knowledge conceptually.
- With a clear focus on course demands, Calculus for AP® introduces content in the sequence most preferred by AP® Calculus teachers, resulting in more complete content coverage.
- How Do You See It? exercises give students practice applying the concepts, and new Summarize features, and Checkpoint problems reinforce understanding of the skill sets to help students better prepare for tests.
- WebAssign, the programs powerful homework engine, engages students with dynamic assignments, interactive supports, and a complete eBook.

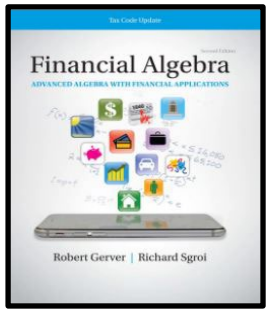
Appendix E



Foundational Skills in Mathematics 9-12
ALEKS
McGraw-Hill Education

- ALEKS is a research-based, online learning program that is a proven, online learning platform that helps educators and parents understand each student's knowledge and learning progress in depth, and provides the individual support required for every student to achieve mastery.
- ALEKS helps students master course topics through a continuous cycle of mastery, knowledge retention, and positive feedback.
- By determining the student's baseline of knowledge, ALEKS creates an individual and dynamic path to success where students learn and then master topics.

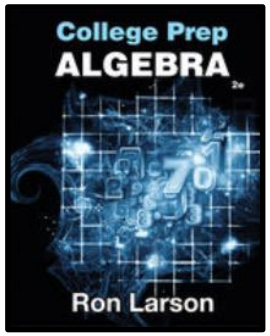
Appendix F



Mathematics for Data and Financial Literacy **(Regular & Honors)**
Financial Algebra: Advanced Algebra with Financial Applications Tax Code Update + MindTap
National Geographic Learning Cengage

- Financial Algebra: Advanced Algebra with Financial Applications is a substantive modeling course for all students.
- Teaches and uses advanced algebra in the content areas of discretionary spending, banking, credit, auto and home ownership, employment, taxes, investments, entrepreneurship, retirement, & budgeting.
- Includes the most recent IRS tax code updates and how they affect our daily lives.
- MindTap, the online learning solution that includes hands-on learning opportunities, videos, homework capabilities, and an eBook.

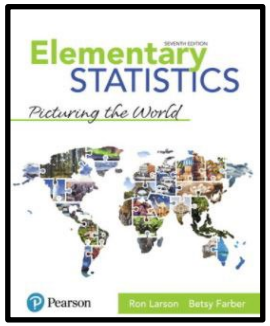
Appendix G



Mathematics for College Algebra
College Prep Algebra: Mathematics for College Readiness Florida Edition + WebAssign
National Geographic Learning Cengage

- College Prep Algebra: Mathematics for College Readiness Florida Edition is designed specifically to give Florida students what they need to learn algebra, all within reach.
- Examples and exercises have been revised to better prepare students and address MTR standards.
- The program carefully integrates technology that engages students and helps inform learning.
- WebAssign, the programs powerful homework engine, engages students with dynamic assignments, interactive supports, and a complete eBook.

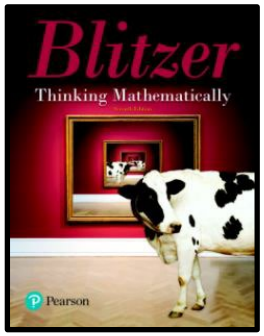
Appendix H



Mathematics for College Statistics
Elementary Statistics: Picturing the World
Savvas Learning Company

- Elementary Statistics: Picturing the World simplifies statistics through practice, real-world applications and makes statistics approachable with stepped-out instruction, extensive real-life examples and exercises, and a design that fits content for each page to make the material more digestible.
- The text's combination of theory, pedagogy, and design helps students understand concepts and use statistics to describe and think about the world.
- Incorporates key features, examples, and exercises, as well as robust technology resources that include StatCrunch®, a new Tech Tips feature, and an Integrated Review version of the MyMathLab for School course.

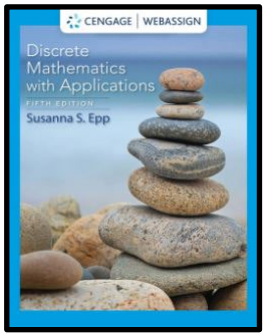
Appendix I



Mathematics for College Liberal Arts
Thinking Mathematically
Savvas Learning Company

- Thinking Mathematically's distinctive and relatable voice engages students in the world of math through compelling, real-world applications – student-loan debt, time breakdown for an average NFL broadcast, and many more.
- Understanding that most students in this course are not math majors, the textbook uses current data compiled from hundreds of books, magazines, and online sources to show students how truly meaningful and fun math can be.

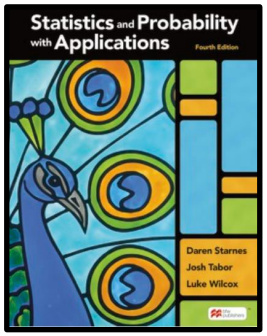
Appendix J



Discrete Mathematics Honors
Discrete Mathematics with Applications + WebAssign
National Geographic Learning Cengage

- Discrete Mathematics with Applications introduces discrete mathematics with clarity, precision and coverage emphasizes major themes of discrete mathematics as well as the reasoning that underlies mathematical thought.
- While learning about logic circuits and computer addition, algorithm analysis, recursive thinking, computability, automata, cryptography and combinatorics, students discover that ideas of discrete mathematics underlie and are essential to today's science and technology.
- WebAssign, the programs powerful homework engine, engages students with dynamic assignments, interactive supports, and a complete eBook.

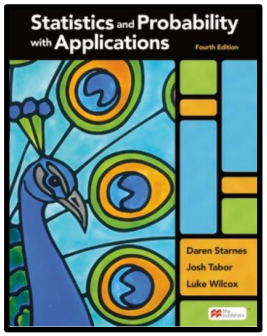
Appendix K



Probability & Statistics with Applications Honors
Statistics and Probability with Applications
Bedford, Freeman & Worth

- Statistics and Probability with Applications is the only introductory statistics text written by high school teachers for high school teachers and students.
- This text covers the core content for the course in a series of brief, manageable lessons, making it easy for students and teachers to stay on pace.
- Throughout, new pedagogical tools and lively real-life examples help captivate students and prepare them to use statistics in college courses and in any career.

Appendix L



A.P. Statistics
The Practice of Statistics
Bedford, Freeman & Worth

- The Practice of Statistics includes all of the required skills -- selecting statistical methods, data analysis, using probability and simulation, and statistical argumentation -- are integrated in the student edition and are clearly identified in the Updated Teacher's Edition to help teachers reinforce them at point of use.
- Combines a data analysis approach with the power of technology, innovative pedagogy, and an extensive support program entirely refreshed to reflect the changes that will allow teachers to use the revised College Board organization and content seamlessly.

Laurie Rich Levinson, Chair
Patricia Good, Vice Chair

Lori Alhadeff
Debra Hixon
Donna P. Korn
Sarah Leonardi
Ann Murray
Nora Rupert

Dr. Vickie L. Cartwright
Superintendent of Schools

The School Board of Broward County, Florida, prohibits any policy or procedure which results in discrimination on the basis of age, color, disability, gender identity, gender expression, genetic information, marital status, national origin, race, religion, sex or sexual orientation. The School Board also provides equal access to the Boy Scouts and other designated youth groups. Individuals who wish to file a discrimination and/or harassment complaint may call the Director, Equal Educational Opportunities/ADA Compliance Department & District's Equity Coordinator/Title IX Coordinator at 754-321-2150 or Teletype Machine (TTY) 754-321-2158.

Individuals with disabilities requesting accommodations under the Americans with Disabilities Act Amendments Act of 2008, (ADAAA) may call Equal Educational Opportunities/ADA Compliance Department at 754-321-2150 or Teletype Machine (TTY) 754-321-2158.

browardschools.com