

Business, Industrial Technology, and Family and Consumer Sciences Program Reviews

Bridgewater-Raritan Regional School District

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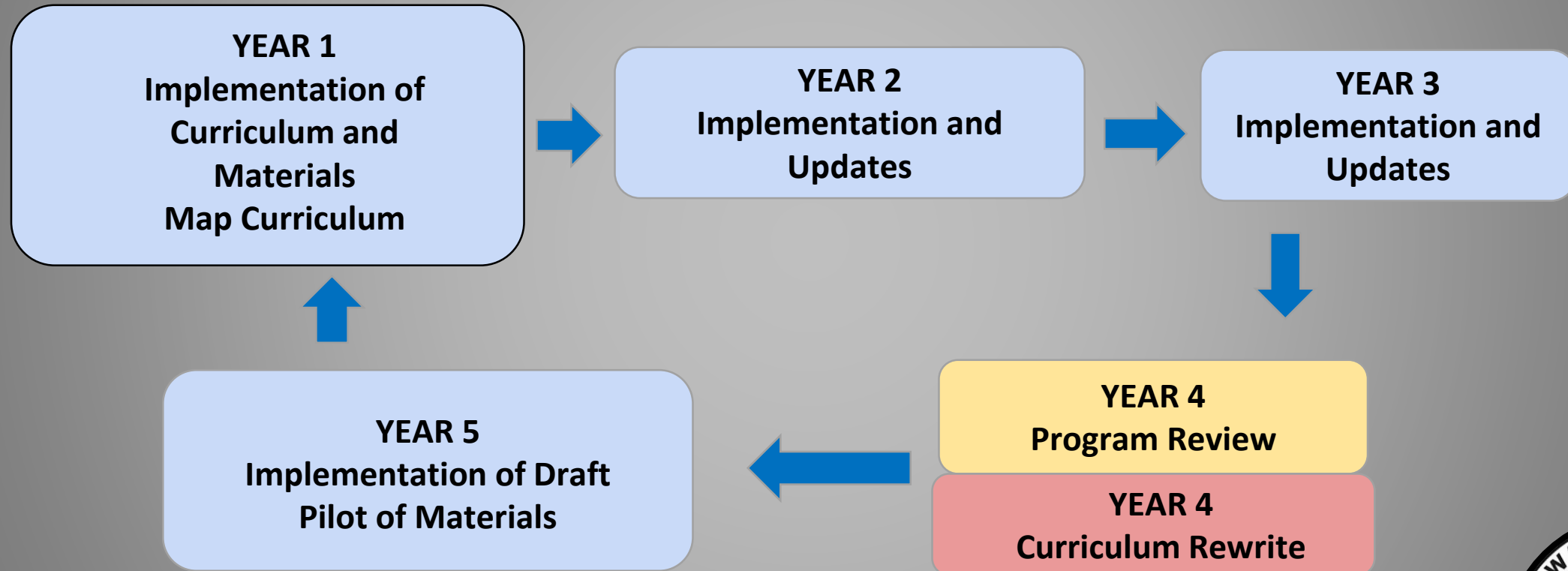
Goals and Purpose

- A description of the program
- A review of the curriculum, instruction, assessment, resources and professional development
- Site visits
- Summary of survey responses
- Recommendations

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The 5-Year Cycle



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Year 4 Breakdown

PROGRAM REVIEW (Part 1)

**PROGRAM DESCRIPTION
(CURRENT)**
Staffing, Resources...



Guiding
Questions

Survey
Results



What Others
Do/Model
Programs



**Program Recommendations
and Recommendations for
Curriculum Revisions**

CURRICULUM REWRITE (Part 2)

Assemble Team of
Curriculum
Rewriters



Establish Vision for
Curriculum Document
and
Department



Determine Scope & Sequence/Establish
Themes/Enduring
Understanding/Essential Questions/Unit
Assessments/Evidence of Learning



Composition
of Units

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Current Program

- Curriculum
- Instruction
- Assessment
- Resources
- Professional Development

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Current Program

- The Business Education (BE) Department:
 - 13 full-time certified teachers
- The Industrial Technology (IT) Department:
 - Eight full-time certified teachers.
- The Family and Consumer Sciences (FCS) Department:
 - Eight full-time certified teachers.
- The teachers in all Departments have diverse educational experiences as well as a wide range of real-world experience.

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Current Program - Overview

7 – 8 Middle School Cycle Program

- Program begins as part of the 7 week cycle program
 - Technology/Computers
 - Industrial Technology
 - Family and Consumer Sciences
 - Art
 - Music

9 – 12 High School Program

- BE Program consists of 25 different courses
- IT Program consists of 13 different courses
- FCS Program consists of 13 different courses

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Current Program - Curriculum

- The current curriculum does not align to the current New Jersey Student Learning Standards (NJSLS) which were updated in 2014.
- The current curriculum does not align to the International Society of Technology in Education (ISTE) which were updated in 2016. ISTE standards are considered best practices for the BE and IT areas of education.
- The current curriculum does not align to the National Association of State Administrators of Family and Consumer Sciences (NASAFACS) standards which were updated in 2018. NASAFACS standards are considered best practices for the FCS area of education.

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Current Program – Assessment and Resources

Assessments

- Primarily teacher-developed, which are shared between teachers that teach different sections of the same class.
- 90% of midterms and final exams are identical with the remaining 10% set aside for a special areas of focus determined by the individual teacher.
- The majority of assessments are hands on, problem based simulations.

Curricular Resources

- Textbooks are outdated, in most areas they are not an integral part of the instruction.
- Supplemental materials have been developed by teacher and are shared amongst staff.

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Current Program – Technology Resources

Business Education:

- In 2017 – 2018 SY at the high school (HS) all six computer labs were replaced. Three labs were replaced with wireless desktop computers and three labs were replaced with laptop carts.

IT and FCS, consists mostly of equipment:

- IT most equipment pre-dates the renovation of HS (circa 1995)
- FCS equipment dates back to renovation of HS (circa 1995)

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Current Program – Professional Development

It was determined that Professional Development has not been:

- Focused.
- Directly related to teachers' interest.
- Challenged them to grow and expand their skillset.

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Site Visits

Site visits were conducted by a BRRSD team including classroom teachers, supervisor and assistant superintendent. Site visits occurred inside and outside of the county. All schools visited were like in size and in the same district factor group. Other schools were researched, but not visited.

School District	County	District Factor Group	District Spending Per Pupil	# Students
BRRHS	Somerset	I	\$17,080	2,882
Watchung Hill Regional High School	Somerset	I	\$18,321	2,205
Hunterdon Central Regional High School	Hunterdon	I	\$21,700	3,043
Livingston High School	Essex	I	\$19,953	1,832

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Survey Results

- Parents
 - BE- 39 responses
 - IT - 38 responses
 - FCS - 36 responses
- Students
 - BE- 386 responses
 - IT - 300 responses
 - FCS - 457 responses
- Staff
 - BE- 12 responses
 - IT - 8 responses
 - FCS - 8 responses

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Recommendations are based on:

- Assessment of our current program
- Site visits
- Survey results
- Research of best practices
- Evaluation of NJDOE standards (NJSLS) as well as national standards
- Conversations with district staff

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Program Recommendations

- Program
- Curricular Writing
- Assessment
- Resources
- Professional Development

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Program Recommendations

PROGRAM:

- Update curriculum to align with instruction that is occurring in the classroom.
- Align the curriculum New Jersey Student Learning Standards
 - 21st Century Life and Careers (9.1, 9.2, 9.3)
 - Technology (8.1, 8.2)
- Align with National Best Practices
 - BE and IT - International Society for Technology in Education Standards (ISTE)
 - FCS – National Association of State Administrators of Family and Consumer Sciences (NASAFCS)
- Update course offerings

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Program Recommendations - BE

PROGRAM:

- Design all classes around the design and problem solving model
- Change Accounting II from Academic to Honors
- Phase out/Elimination of outdated courses

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Program Recommendations - IT

PROGRAM:

- Design all classes around the design and problem solving model
- Course name changes
 - Media Communications I, II, III, and IV to Filming and Video Editing I, II, III, and IV
 - Video Production Seminar to Filming and Video Editing Seminar
 - Change Filming and Video Editing Seminar from Academic to Honors
- Phase out/Elimination of outdated courses
- Design a IT Makerspace Suite

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Program Recommendations - FCS

PROGRAM:

- Change prerequisites to Introduction to Culinary Arts for all Culinary Arts Classes
- Course name changes – Culinary Art
 - Applied Culinary Arts I to Cooking Across America
 - Applied Culinary Arts II to International Foods
 - The Art of Applied Nutrition to Culinary Nutrition
- Course name changes – Fashion Design
 - Fashion Design I to Sewing Concepts
 - Fashion Design II to Design and Sewing Techniques
 - Fashion Design III to Fashion and Creative Design
- Course name changes – Other
 - Family and Child II to Early Childhood Education
 - Space and Design to Home and Interior Design

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Certificate Program

Business Education:

- Continue to monitor and review current certificate program

Industrial Technology - Develop a certificate program

- Woods Technology
- General Industrial Technology

Family and Consumer Sciences - Develop a certificate program

- Culinary Arts
- Fashion Design
- General Family and Consumer Sciences

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Recommendations – Curricular Writing

- Spring and Summer of 2019 – Update all curriculum (Grades 7 through 12) to meet New Jersey State Learning Standards.
 - 21st Century Life and Careers (9.1, 9.2, 9.3)
 - Technology (8.1, 8.2)
- Align curriculum to national best practices
 - BE and IT - International Society for Technology in Education Standards (ISTE)
 - FCS – National Association of State Administrators of Family and Consumer Sciences (NASAFCS)

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Recommendations – Curricular Writing - BE

- Additional courses to be added to Program of Study
 - Technology Cycle (Grade 8) – Technology and Financial Literacy
 - Leadership and Philanthropy
 - Entrepreneurship - Advanced Business
 - App Development
 - Introduction to Marketing through Social Media
 - Keyboarding and Computer Applications
 - Business and Criminal Law
- Elimination of courses from Program of Study
 - Technology Cycle (Grade 8) – Computer Literacy and Digital Citizenship
 - Keyboarding
 - Computer Applications
 - College Prep Accounting
 - Introduction to Marketing
 - Business Law

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Recommendations – Curricular Writing - IT

- Additional courses to be added to Program of Study
 - Audio and Music Engineering
 - CNC Production
 - Drone Technology
 - Robotics and 3D Printing
- Phase out/elimination of courses from Program of Study due to low enrollment and lack of student interest
 - Electronics
 - Engineering Computer Graphics II
 - Fundamental of Automated Design
 - Home improvement

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Recommendations – Curricular Writing - FCS

- Additional Courses to be added to Program of Study
 - FCS (Grade 7) – Fashion Design and Household Budgeting
 - Baking and Pastry Arts
- Elimination of Courses from Program of Study
 - FCS (Grade 7) – Textile and Design
 - Family and Consumer Sciences Course

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Recommendations - Assessment

- Align assessment to demonstrate attainment and retention of NJSLs.
- Move toward Common Assessments as well as align rubrics and grading practices amongst classes taught by different teachers.
- Move major assessments to a curriculum management software program.
- Continue to develop assessments that are based on real world simulations.
- Continue to evaluate assessments to ensure that they are meeting our targeted learning outcomes.

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Recommendations – Resources - BE

- New Textbooks
 - Accounting I
 - Accounting II
 - Introduction to Business
 - Computer Applications
 - App Development
- New Software
 - Automated Accounting
 - MIT App Inventor – Free – App Development
- Technology
 - Continue to upgrade technology based on District Technology Plan
 - 25 – Kindle Fire HD 8 Tablets – App Development

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Recommendations – Resources - IT

- Technology needed for new courses
 - Computer Numerical Control (CNC) Machines
 - Dust Collection
 - Epilog Laser Printer
 - Laptop Cart
 - 3D Printers

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Recommendations – Resources - IT

- Woodshop
 - Air Conditioning
 - PC Based Laptop Cart
 - Replace obsolete equipment – some machines are more than 50 years old
 - Upgrade to dust collection system
- Television Studio – 19 years old
 - Additional LED lights
 - High Definition Cameras
 - High Definition switcher and support equipment
 - New or repair to back drop curtains
 - Upgrade to other outdated equipment (e.g., VCRs, CRTs)

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Recommendations – Resources - FCS

- Update kitchens - one at middle school and two at high school
 - Replace counters with stainless steel to make more sanitary
 - Replace damaged and broken cabinets
 - Upgrade refrigerators and freezers to commercial grade to keep food at proper temperatures
 - Stainless steel storage and demonstration table
- High school kitchens only – two kitchens
 - Replace classroom type tables with Stainless Steel Work Utility Tables on wheels
 - This would allow for flexibility of instructional space
 - Replace chairs with stools
 - Overhead mounted demonstration camera
 - Have range hoods vented to outside.
 - Removal of end cabinets to provide more floor space and flexibility of learning environment.

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Recommendations – Resources - FCS

- Replace the Chromebook Cart in 2026 with a laptop cart. This would allow for more flexibility of instruction that better support all learner from struggling through advanced.
- Color laser printers

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Staffing

No anticipated change in current staffing levels. However staffing will need to be reassessed on an ongoing basis based on student interest as demonstrated through the course request process.

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Recommendations – Professional Development

- Develop a plan that will:
 - Provide ongoing, targeted professional development for staff.
 - Develop knowledge and skills teachers need to address students' learning challenges.
 - Improve educational efficacy.
 - Build confidence in staff.
 - Encourage, inspire and reenergize staff.

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THANK YOU!



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