



Technology Education Department Grades K-6

Program Review

2017-2018

Board of Education

2017-2018

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Introduction

It is the goal of the Bridgewater-Raritan Office of Curriculum and Instruction to develop and implement a thorough, data-based process for analyzing curriculum, instruction, assessment, student performance, professional development, and resources in all curricular areas ensuring that professional practice is always current, relevant, and aligned to the most updated standards. Each curricular area will be reviewed on a, at most, five-year timeline. The results of each process will be presented publicly.

Acknowledgements

The following individuals were directly involved in gathering information/data and contributed to the completion of the program review, which is presented in this document.

- Jaimee Kochis, Supervisor of Instructional Technology
- John Evancho, Hamilton School Technology Teacher
- Carol Munn, Eisenhower School Technology Teacher
- Maridy Gamoso, Adamsville School Grade 3 Classroom Teacher
- John Hingelberg, Hillside School Grade 6 Classroom Teacher
- Joe Diskin, Eisenhower School Principal
- Leigh Woznick, School Library/Media Specialist

The Technology Departments teachers that provided feedback to the guiding questions are listed below:

- Marie Drake, JFK School Technology Teacher
- Lori Ferris, Van Holten School Technology Teacher
- Andrea Perry, Crim School Technology Teacher
- Christina King, Hillside School Technology Teacher
- Jutta Seeler, Adamsville School Technology Teacher
- Karen Gartling, Bradley Gardens Technology Teacher
- Dianne Kolavitch, Milltown School Technology Teacher

Goals and Purpose

In this document, it is the goal of the Technology Department to present the following:

- Description of the program
- Current course offerings including enrollment data
- Review of the curriculum, instruction, assessment, resources and professional development
- Student performance data
- Recommendations leading into the Curriculum Revision Process

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Description of Current Program

The K-6 Technology Department recognizes that citizens of the 21st Century need to possess a variety of knowledge, skills, and competencies. The K-6 Technology Department believes that the primary and intermediate students need to build the necessary technology foundation skills, as well as encourage students to be empowered learners, clear communicators, and effective collaborators. Classroom tasks must encourage technology skills, investigation skills, critical thinking skills, and problem-solving skills, in order to foster lifelong learners and productive citizens in a technologically complex, multicultural, and global environment.

As a result of the recent integration of technology into daily instruction, the role of the K-6 technology cycle has continued to evolve. Computer teachers currently work to support classroom teachers and to increase students' capacities for technology use both in and out of school.

The K-6 Technology Department consists of nine full-time teachers, one in each of the K-6 schools. The current schedule includes computer class once a week for students at the K-6 level. At the Kindergarten level, instructional time varies from technology instruction on an as-needed basis to a 30-minute scheduled class period per week. Most of the schools have a 20-minute scheduled technology class period each week for kindergarten students.

In a number of schools, preschool technology exists for the special education students in the district's preschool program. This class is offered based on enrollment and teacher schedules. Currently, there is not a curriculum for the preschool program.

Students in grade 1-6 attend a technology class once a week for 40 minutes. Students travel to their specials with their general education homeroom class. The general education classroom teachers do not attend the special since this time is utilized as prep, team meeting, or PLC time.

The number of classes taught varies from each building depending on the number of sections at each school. At one school, during open periods, the computer teacher and librarian teach pull-out enrichment class for students. At another school, during open periods, the computer teachers collaborate and plan with classroom teachers. At other schools, the computer teachers provide class coverage as needed or assist with school initiatives such as the Continental Math League or Geography Bee. Some of the primary technology teachers are scheduled to travel to another school to fill open technology classes. For example, there is, at present, one primary technology teacher who travels to Eisenhower once a week to teach technology classes. There is also one primary technology teacher who travels to Adamsville once a week to teach preschool classes.

Course Offerings

| Course Title | Grade Level(s) | Curriculum Approved | Date Established |
|---|----------------|---------------------|------------------|
| Preschool: Technology (Note #1) | Pre-School | NA | NA |
| Technology Special: Kindergarten (Note #2) | K | September 2006 | September 2006 |
| Technology Special: 1 st Grade | 1 | September 2006 | September 2006 |
| Technology Special: 2 nd Grade | 2 | September 2006 | September 2006 |
| Technology Special: 3 rd Grade | 3 | September 2006 | September 2006 |
| Technology Special: 4 th Grade | 4 | September 2006 | September 2006 |
| Technology Special: 5 th Grade | 5 | March 2007 | September 2008 |
| Technology Special: 6 th Grade | 6 | March 2007 | September 2008 |

Note #1– Preschool instruction is a 20 minute cycle and provided primarily as a prep for the teacher.

Note #2 - The kindergarten technology classes meet for 20 minutes, since the kindergarten program is half day. However at Milltown Primary School, kindergarteners are not scheduled for kindergarten technology class. At Hamilton Primary School, the technology class runs for an additional 10 minutes for a total of 30 minutes.

Four Year: Course Enrollment Trends

The following table shows course enrollment over the past four years for the department.

| | 2017-2018 | | | 2016-2017 | | | 2015- 2016 | | | 2014- 2015 | | |
|----------------|------------|------------|---------|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| | # Sections | # Students | Average | # Sections | # Students | Average | # Sections | # Students | Average | # Sections | # Students | Average |
| K | 26 | 415 | 16 | 27 | 427 | 16 | 29 | 386 | 13 | 29 | 441 | 15 |
| Grade 1 | 30 | 567 | 19 | 28 | 526 | 19 | 32 | 609 | 19 | 29 | 562 | 19 |
| Grade 2 | 28 | 557 | 20 | 35 | 646 | 18 | 29 | 570 | 20 | 32 | 594 | 19 |
| Grade 3 | 30 | 638 | 21 | 33 | 608 | 18 | 32 | 619 | 19 | 31 | 617 | 20 |
| Grade 4 | 30 | 622 | 21 | 35 | 649 | 19 | 29 | 624 | 22 | 32 | 613 | 19 |
| Grade 5 | 30 | 678 | 23 | 32 | 667 | 21 | 34 | 637 | 19 | 33 | 673 | 20 |
| Grade 6 | 34 | 677 | 20 | 34 | 631 | 19 | 33 | 671 | 20 | 32 | 663 | 21 |

Note: Average class size was determined by dividing the number of students by the number of sections.

Review of Curriculum, Instruction, Assessment, Resources, and Professional Development

The following information was gathered from interviews and forums at department meetings. A full list of these guiding questions can be found in Appendix A of this document.

The current curriculum was written in 2006 and does not directly align to the current New Jersey Student Learning Standards 8.1 Educational Technology and 8.2 Technology Education, Engineering, Design and Computational Thinking/ Programming, which were updated in 2014. The curriculum does not reflect integration of the International Society for Technology Education (ISTE) Standards for students which were revised in 2016.

The goal of the computer department is to develop the students capacity in technology for use inside and outside of school. The content and skills taught vary by building; however, in recent years, there is improved implementation and instruction of Google Apps. Technology has changed greatly since the curriculum was last revised, and as a result there is inconsistency in content and implementation in each building. For example, Milltown School and Hamilton School both have Dash and Dot robots and students have instruction and learning opportunities on how to code the robots. At Milltown School, students are pulled in small groups from their general education class to attend the Milltown Makers Club. During the Milltown Makers Club, students are exposed to the Dash and Dot, as well as other enrichment activities.

At the intermediate level, Eisenhower School focuses heavily on coding and robotics in grade 5 -6, whereas at Hillside School, the focus is on Google and Web 2.0 tools.

As a result of the recent Hour of Code movement, all students receive an introduction to coding. The depth of implementation varies based on the school.

Learning activities vary from building to building, as does assessment. A standard set of competencies for students to master does not exist. The teachers do not give pre-assessments to determine student-need prior to starting a unit. The department does not have rubrics to assess student learning. There is not a standard grade level assessment for all students. Assessments are informal and vary from building to building. At the K-4 level, students do not receive a grade on their report card for technology class. At the Intermediate level (grades 5-6), students do receive letter grades on their report cards.

Keyboarding is introduced in grade 2 and continues through grade 6. Teachers use various software programs for keyboarding instruction such as Mavis Beacon, Typing.com, and Typing Club.

Instruction in the classrooms is similar. Most classes begin with keyboarding practice. After keyboarding practice, the teacher typically gives a whole class lesson on a specific technology skill or skill set. The students move back to the computers for individual practice. When

applicable, the teacher will make curriculum connections. The extent of such connections varies from teacher to teacher and from building to building.

The desktops in the K-4 computer labs are seven years old. New desktops were put in the intermediate schools in March of 2017.

K-6 technology teachers have received little professional development. A Google Boot Camp was offered in 2016 which many technology teachers attended. All of the teachers have also attended the Code.org workshop.

Survey

| K-6 Computer Survey Responses |
|--------------------------------------|
| K-6 Parents = 134 responses |
| K-6 Students = 26 responses |
| K-6 Staff = 113 responses |

Survey Summary

In the spring of 2017, surveys were created and sent to parents, students, and staff. As a result of low responses, the survey window was reopened in November of 2017.

Parents strongly agreed that technology is an important part of their child's academic experience. Parents reported that Google Apps and keyboarding should be taught, as well as coding and robotics. Parents also expressed an interest in teaching online safety and security to children (digital citizenship).

Student survey responses were similar, but also expressed interest in photo and video editing.

In a number of areas, staff responses mirrored community sentiment, indicating technology is an important part of each student's academic experience. Teachers reported the importance of Google Apps and keyboarding being taught, as well as coding. Teachers also reported needing more devices in the classroom to help support the integration of technology into daily instruction.

Site Visits

In October of 2017, site visits were planned, selecting district factor groups above and below BRRSD (BRRSD is an I). Site visits occurred inside and outside of the county. Other “I” school districts were researched but not visited. These districts include Ramsey in Bergen County and Hopewell in Mercer County. The BRRSD site visit team included classroom teachers, computer teachers, librarians, and a principal.

Morris School District. Morris School District, located in Morris County, is a district factor group GH and has ten schools and 6,000 students. The K-8 schools use a blended-learning instructional model in which technology is one station within a small-group environment.

- The district (K-12) has been 1:1 for the last seven years.
- The district has five Technology Integration Specialists.
- The K-5 library media specialists teach both library and technology.
- The special cycle is on a six-day rotation.
- The K-5 libraries have STEM kits that are used instead of a makerspace.
- The 5-8 computer classes are also STEM-based and include engineering, coding, and robotics.
- The 9-12 library is open during lunch for students. This year they opened a “cafe” part of the library. There are two library media specialists at the high school who also teach multimedia cycle courses.

Somerville School District: Somerville School District, located in Somerset County, is a district factor group FG and has three schools and 2,500 students.

- The district is 1:1 in grades 3-12.
- The district has two Technology Integration Specialists.
- The special cycle is on a six-day rotation.
- They do not have library media specialists at the K-5 level.
- Computer teachers are now Coding Teachers. Students receive coding and robotics instruction twice in a 6 day cycle in grades K-2 and three times in grades 4-5.
- There is no direct instruction of Google Apps.
- The 7-12 Media Specialists support classroom teachers with a flexible schedule.

Flemington Raritan School District: Flemington Raritan School District, located in Hunterdon County, is a district factor group I and has six schools K-8 and 4,500 students.

- The district is 1:1 in grades 3-12.
- The district has five Technology Integration Specialists for six schools.
- The district has media specialists at each school.
- Computer Cycle is taught in grades K-1-2 and then again in Grade 5. Technology Integration Specialists work as coaches in grades 3-4 and collaborate with teachers, pushing into classrooms.
- The 5-6 Curriculum is called Design Technology and Applications and focuses on Coding, Robotics and Makerspaces.

- There is no direct instruction of Google Apps.
- The special cycle is on a six day rotation. Students in grades 5-6 receive technology instruction three times in a six day cycle.
- The Media Specialists in grade 5-12 have a flexible schedule to support classroom teachers.

West Windsor- Plainsboro School District: West Windsor- Plainsboro School District, located in Mercer County is a district factor group “J”, and has 10 schools and 10,000 students.

- The district is 1:1 in grades 5-9 and is currently rolling out one grade per year.
- The district has six instructional coaches that focus on technology .
- The district has a media specialist at each school.
- Library instruction is given to all students in grades K-5, Media Specialists have a flexible schedule at the Middle School and High School.
- Computer Cycle begins in grade 3 when Google Apps and Coding is introduced to students.

Hillsborough School District: Hillsborough, located in the Somerset County is a district factor group “I” and has nine schools and 7,500 students.

- Hillsborough is 1:1 from grades K-12.
- Technology class is only taught in grade 5.
- Each school has a 10-month computer support teacher. There are also two 12- month Technology Integration Specialists who work as liaisons between the Director of Technology and the teachers. Finally, there are two technology coaches in the district.
- There is a library media specialist in each building in the district. The media specialists focuses on literacy and literature appreciation.

Assessment Description of Proficiencies

At this time, assessments are not given to students. Students do not receive grades on their report cards for computer class K-4. There are no grade level competencies for students.

Overall Student Performance Analysis

At this time, there are not any assessments to determine student performance.

Research Findings

Parents, teachers, and students view technology as an integral and necessary part of school, work, and home life. As a result, our schools are constantly evolving to keep pace with the technology needs of our students.

There is a vast amount of research that supports the integration of coding and robotics into K-12 technology instruction. This report does not encapsulate all research findings but summarizes the important positive effects of integrating coding and robotics into computer instruction.

The NMC/CoSN Horizon Report is published yearly and examines emerging technologies and their impact on and use in teaching and learning. According to the 2017 NMC CoSN Horizon Report, the driving technology in K-12 education in the next one to two years is coding and robotics since both can provide students with an avenue for innovation, invention, and creative expression.

Coding in education is beneficial for many reasons. John Porter of the eLearning Industry reports that coding is referred to as the “universal language of the planet” (Porter, 2017). Meaning that people who know how to code will be able to communicate across countries and cultures.

Coding and robotics also encourage computational thinking. The ISTE standards for students describe computational thinking as a skill needed to succeed in the 21st century. Computational thinking is to “develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions” (ISTE, 2016).

Knowledge and experience in coding and robotics will prepare students for the 21st-Century workforce. A White House press release called “New Commitments to Support Computer Science Education” reported that by 2020, more than 50% of STEM jobs are projected to be in computer science-related fields. If current trends continue, 1.4 million computer science-related jobs will be available over the next ten years, but only 400,000 computer science graduates will be added with the skills to apply for those jobs. Code.org reports that not only are computer science jobs the number one source of new jobs in the United States but that computer science majors have jobs that pay up to 40% more than other college majors.

In summary, coding and robotics instruction helps children understand how computers work, communicate their thoughts through structure and logic, think critically, solve problems, and arrive prepared for the digital workplace of the 21st-century.

Program Recommendations K-6

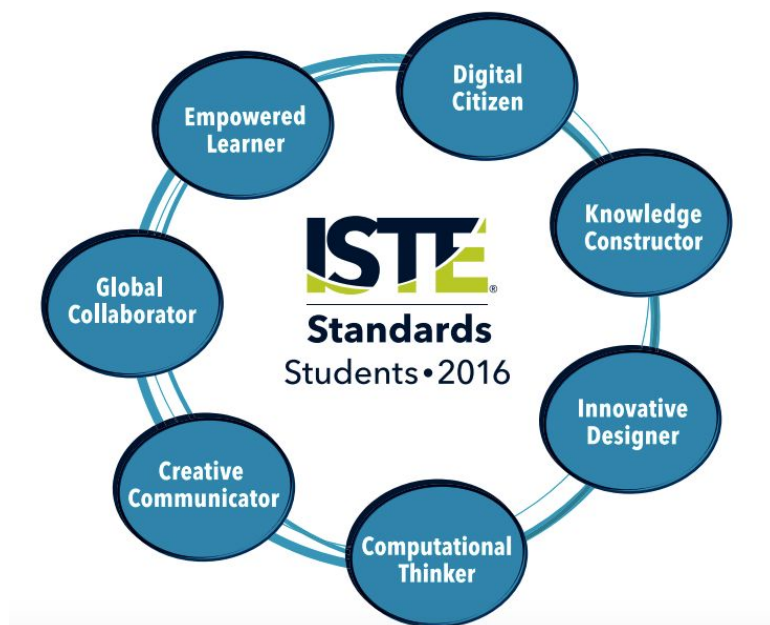
The technology program at Bridgewater Raritan will be designed to compliment the many areas of technology students' needs. Instructionally, it is expected that students have the skills needed to productively and successfully use technology in the classroom to enhance their learning experiences. A specific instructional plan will need to be created and implemented, focused on how technology can transform learning in a student-centered environment.

Computer cycle is a special area class that provides students with the opportunity to explore innovative technology. It is recommended to enhance the current technology program with the integration of coding and robotics. At the elementary level, a Digital Thinking Course will focus on coding, robotics, Google Apps, digital citizenship, and 21st-Century skills. This program will grow student capacity each year in each area. At the intermediate level, an Innovation and Design Course will focus on innovation, design, and engineering as well as digital citizenship and 21st-Century skills.

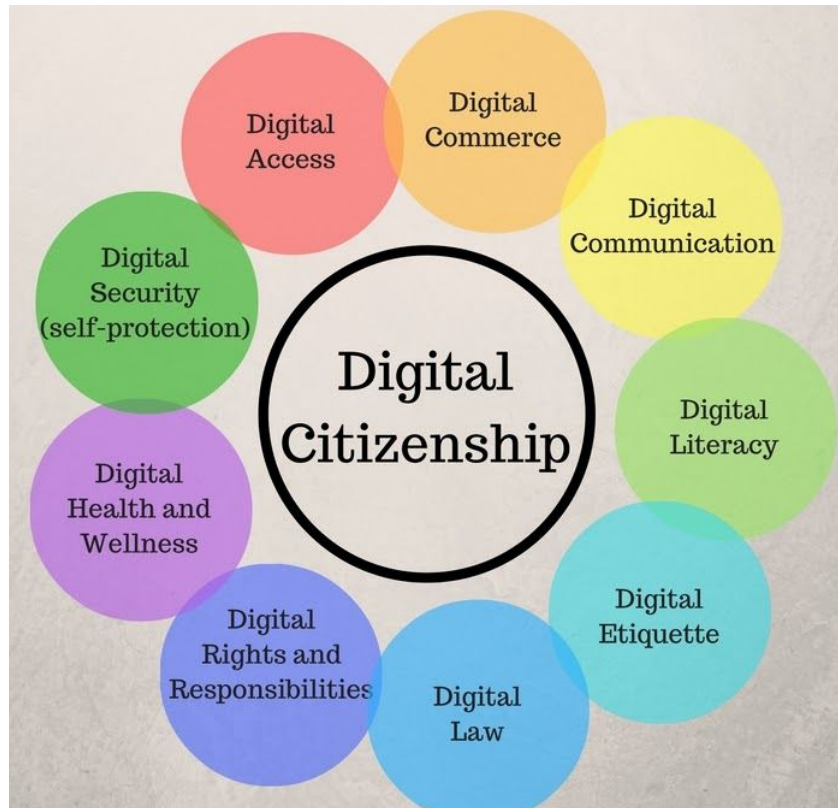
RECOMMENDATIONS:

PROGRAM:

- Create consistency in the implementation of our curriculum district-wide.
- Align the curriculum to NJSL 8.1 and 8.2.
- Enhance the current technology program with the integration of coding and robotics.
- Enhance the current technology program with the infusion of the ISTE standards.



- Infuse digital citizenship strands into curriculum.



- Replace current computer cycle with a Digital Thinking course taught to students in grades 1-4. This course will focus on basic coding and robotics skills as well as Google Apps and Digital Citizenship. A scope and sequence will be created that demonstrates how skills are built upon from one year to next. As students are introduced to concepts earlier, the curriculum will need to be adjusted to meet the students needs.
- Replace current computer cycle in grades 5-6 to create Innovation and Design course to be taught in marking period cycles. The Design Engineering tasks allow students to design, build, and program robots. In the Programming Innovation portion of the class, students will work on problem-based tasks that allow them to be inventors as they prototype and learn with electronics. The Innovation and Design Course in grade 6 will focus on 3D Design. Students will create 3D models that are designed to infuse architecture, engineering, science, and math.
- Explore opportunities in scheduling for K-4 computer teacher to collaborate at grade level meetings and with library/media specialist to support integration of technology.
- Explore opportunities for computer teacher to support classroom teacher in infusing technology into classroom instruction.

CURRICULUM WRITING:

- Curriculum writing in Spring of 2018.
- Curriculum revisions in Spring of 2019.

ASSESSMENT:

- Create and implement computer applications pretest to assess students knowledge and use results to design targeted, meaningful instruction.
- Create and implement computer applications post-test to assess student growth.
- Create consistent assessment criteria for measuring student progress.
- Create and share grade level competencies / rubrics with teachers.

RESOURCES / PROFESSIONAL DEVELOPMENT:

- It is recommended desktops be replaced with Chromebooks and supplemental materials purchased.
- Upon completion of curriculum writing process, it is recommended the team research, evaluate and pilot materials to support coding, robotics and innovation/design.
- A plan will be created in order to provide ongoing, targeted professional development for our staff.

| | Scope and Sequence |
|---------|--|
| Grade 1 | <p>Digital Thinking Course begins in grade 1 and focuses on basic coding concepts such as sequencing tasks, and recognizing patterns in programs.</p> <p>Students will begin programming robotics with hands-on exploration while learning skills of directionality, sequencing, and estimation.</p> <p>Students will be introduced to basic educational technology skills.</p> <p>Students will learn the impacts of computing (digital citizenship) including digital safety, security, and privacy.</p> <p>The course will be designed to encourage students to be empowered learners, clear communicators, and effective collaborators. Classroom tasks will encourage investigation skills, critical thinking skills, and problem-solving skills.</p> |
| Grade 2 | <p>The Digital Thinking Course in grade 2 will continue to build on the concepts learned the year prior.</p> <p>Students will continue their coding skills by using coding to program robots, more specifically: sequencing, loops, and events.</p> |

| | |
|---------|---|
| | <p>Students will be introduced to educational technology skills such as keyboarding and the Google Apps, more specifically Google Docs and Google Slides.</p> <p>Students will learn the impacts of computing (digital citizenship) including online communication, etiquette, and digital empathy.</p> <p>The course will be designed to encourage students to be empowered learners, clear communicators, and effective collaborators. Classroom tasks will encourage investigation skills, critical thinking skills, and problem-solving skills.</p> |
| Grade 3 | <p>The Digital Thinking Course in grade 3 will continue to explore the fundamentals of coding concepts while encouraging computational thinkers.</p> <p>Students will continue their coding skills by using coding to program robots. More specifically, students will learn skills such as conditionals, functions, and variables.</p> <p>Students will be introduced to educational technology skills such as keyboarding and the Google Suite (specifically to build on knowledge of Google Docs and Google Slides and introduce Google Forms and Sheets).</p> <p>Students will learn the impacts of computing (digital citizenship) including rights and responsibilities, digital footprint and online identity/image.</p> <p>The course will be designed to encourage students to be empowered learners, clear communicators, and effective collaborators. Classroom tasks will encourage investigation skills, critical thinking skills, and problem-solving skills.</p> |
| Grade 4 | <p>The Digital Thinking Course in grade 4 will continue to explore the fundamentals of coding concepts.</p> <p>Students will continue their coding skills by moving from block-based coding to using simple text based code.</p> <p>Students will expand their knowledge of Google Apps as well as be introduced to Google Sites and photo/video editing.</p> <p>Students will learn the impacts of computing (digital citizenship) including rights and responsibilities, digital footprint, and online identity/image.</p> <p>The course will be designed to encourage students to be empowered learners, clear communicators, and effective collaborators. Classroom tasks will encourage investigation skills, critical thinking skills, and problem-solving skills.</p> |
| Grade 5 | <p>The Innovation and Design Course in grade 5 will focus on engineering and programming.</p> |

| | |
|---------|--|
| | <p>The Design Engineering tasks allow students to design, build, and program robots. Students will design, build, and test robots to complete a variety of tasks and challenges. Problem-based challenges will infuse science, technology, and math.</p> <p>In the Programming Innovation portion of the class, students will work on problem-based tasks that allow them to be inventors as they prototype and learn with electronics.</p> <p>The course will be designed to encourage students to be empowered learners, clear communicators, and effective collaborators. Classroom tasks will encourage investigation skills, critical thinking skills, and problem-solving skills as well as Digital Citizenship.</p> |
| Grade 6 | <p>The Innovation and Design Course in grade 6 will focus on 3D Design. Students will create 3D models that are designed to infuse architecture, engineering, science, and math.</p> <p>The course will be designed to encourage students to be empowered learners, clear communicators, and effective collaborators. Classroom tasks will encourage investigation skills, critical thinking skills, and problem-solving skills as well as Digital Citizenship.</p> |

Curriculum

- Although a scope and sequence will be a baseline for instruction, the data from the pre-test will allow teachers to focus on specific skills for students to master, as well as targeted enrichment skills for students.
- The curriculum will be designed to meet the NJSL 8.1 and 8.2. The state is currently looking to make digital citizenship its own strand in the standards. Although this is not created, it is recommended digital citizenship strands be incorporated into the curriculum writing.
- The state is also considering moving away from NJSL 8.1 and 8.2 and revising the standards to directly relate to the ISTE Standards. Therefore, it is recommended the curriculum be aligned to meet the ISTE standards:
 - Empowered Learner
 - Digital Citizenship
 - Global Collaborator
 - Knowledge Constructor
 - Creative communicator
 - Computational Thinker
 - Innovative designer

Staffing

- One staff member per building.

Resources and Technology

- Budget to include:
 - new devices
 - grades 1-4 coding and robotics materials
 - grades 5-6 innovation and design materials
 - subscriptions
 - printers and 3d printers
 - furniture
 - curriculum writing
 - professional development

Bridgewater Raritan Public Schools

K-6 Computer Program Plan Timeline

| | <u>2017-2018</u> Program Review | <u>2018-2019</u> Draft Year | <u>2019-2020</u> Implementation and Mapping | <u>2020-2021</u> Implementation | <u>2021-2022</u> Implementation |
|--|---|---|---|------------------------------------|------------------------------------|
| Staffing | 1 staff member per building K-6. | 1 staff member per building K-6. | 1 staff member per building K-6 | 1 staff member per building K-6 | 1staff member per building K-6. |
| Programs/ Courses | Teachers will follow current curriculum. | Teachers will follow current curriculum. | See attached scope and sequence. | See attached scope and sequence. | See attached scope and sequence. |
| Curriculum Writing | Budget for Curriculum Writing: Spring of 2018. | Budget for Curriculum Revisions: Summer 2019. | Curriculum implemented | Curriculum implemented | Curriculum implemented |
| Professional Development | Begin PD using Curriculum Monday Meetings. | * Continued PD on specific materials in Jan-June. | *Budget for out of district PD if needed. | *Budget for in-house continued PD | *Budget for in-house continued PD |
| Materials/ Technology/ Budget | *Replace labs with chromebooks. * Begin material search. | *Purchase keyboarding licenses *Upgrade Printers *Upgrade Furniture. Classroom storage units. * Continue materials search * Purchase district materials for grades 1-6 by Jan 2019 in order to provide training for Sept 2019 implementation. | *Budget for software which may be needed as a result of materials search. | *Replenishment as needed. | *Replenishment as needed. |

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Appendix A

Data Collection, Teacher Feedback, and Reviews

Review of Curriculum

1. To what extent do teachers utilize the curriculum in their unit/daily planning?
 - a. If you do utilize the curriculum, how do you leverage it in the classroom (*e.g., questions, rubrics, resources, assessments, etc*)?
2. Do you believe that you and your colleagues have a clear and common expectation for what needs to be taught?
 - a. How students are being assessed?
 - b. Ways in which the needs of learners across the spectrum can be met.
3. From what you have experienced with regard to student's prior knowledge and skill acquisition, does the curriculum appear to be well sequenced (vertically)? Please provide examples for your response.
4. From what you have experienced on grade level, is the curriculum being implemented consistently? Please provide examples for your response.

Review of Instruction

1. To what extent do teachers align their teaching to the curriculum?
 - a. To state standards?
2. How do we integrate with other disciplines? Provide specifics for your response.
3. How do students utilize technology in the _____ classroom?
4. How do _____ teachers teach to the variety of needs of learners within their classrooms?
5. From what you see, is the teaching of _____ more content or skill based? Provide examples for your response.
6. Do you assess the same way and for the same content as your grade-alike peers?
 - a. How do you share data with your colleagues?
7. What is the typical mode of instruction in your _____ classroom?
8. What is the typical mode of assessment in your _____ classroom?

Review of Assessment and Instruction

1. How do we measure student performance in _____ classroom?
2. Are we consistent with purpose, method, criteria, standard and feedback?
 - a. Provide examples to support your response.
3. How do we use student performance data?
 - a. How do we share/discuss this important information?
 - b. What decisions do we make with this data?
4. How does data affect the following areas?
 - a. Instruction
 - i. Differentiation
 - ii. Increase/decrease of rigor
 - iii. Student centered instruction
 - b. Placement
 - c. Curriculum
 - d. Professional Development
5. How do we assess our curriculum?
6. How do we measure the effectiveness of our assessments? Respond with regard to:
 - a. How they measure student achievement
 - b. How they measure content and delivery
7. How do we compare ourselves? Respond in the following areas:
 - a. Standards
 - b. Others
8. In what context do we discuss student performance?

Review of Resources

1. Does the district provide adequate resources to teachers to transform curriculum into

meaningful instruction?

- a. Where are they lacking?
 - b. Are our current resources articulated?
 - c. Are they current?
2. How much technology is available for students and teachers?
 3. How does the district provide adequate professional development to enable teachers to effectively and consistently use supplied resources for instruction?
 4. Does the district supply adequate resources to teachers to support planning for instruction? Please provide specific examples.
 5. How does the district supply adequate resources for:
 - a. Teachers to assess student performance?
 - b. Teachers to plan for instruction?
 - c. Teachers to assess communication with each other?

Review of Professional Development

1. How has the district been supporting professional development that is specific to _____?
 - a. Were you involved in its execution and/or implementation?
2. How has this professional development affected instruction and assessment?
3. How does the district analyze the effect of professional development? Please provide specific examples.
4. How does the district report out on the effect of the professional development? Please provide specific examples.

Appendix B

Parent, Student and Teacher Surveys