

Greater Fall River Vocational School District Three-Year Local Technology Plan

2018-2021



Diman Regional Vocational Technical High School

251 Stonehaven Road Fall River, MA 02723

www.dimanregional.org

Table of Contents

| | |
|---|-----------|
| Benchmark 1- Commitment to a Clear Vision and Implementation Strategies..... | 3 |
| Benchmark 2- Technology Integration and Literacy..... | 7 |
| Benchmark 3- Technology Professional Development..... | 9 |
| Benchmark 4- Accessibility of Technology..... | 10 |
| Benchmark 5- E-Learning and Communications..... | 12 |
| Benchmark 6- Safety, Security, and Data Retention..... | 13 |
| School Technology Improvement Planning Goals..... | 20 |
| Action Plan..... | 21 |
| Appendix 1..... | 27 |

Diman is committed to equal opportunity in education and employment practices. The Greater Fall River Vocational School District does not discriminate against individuals on the basis of race, color, sex, sexual orientation, gender identity, religion, disability, age, genetic information, active military/veteran status, ancestry, or national or ethnic origin in the administration of its educational policies, employment policies, and other administered programs and activities.

Benchmark 1- Commitment to a Clear Vision and Implementation Strategies

Technology Vision

Diman Regional promotes 21st Century skills relating to informational and technological literacy as key tools to prepare students as they enter post-secondary experiences. We strive to create a school-wide technology infrastructure supporting the integration of these skills and academic/technical instruction. Teachers use technology to enhance student learning and achievement. The Greater Fall River Vocational School District provides all members of the school community with equitable and continually access to current technologies, as well as training and support.

Definition of Technology

Throughout this document, the term technology refers to the computer software, hardware, and infrastructure that are used for acquiring, sharing, and interacting with information. In order to meet the standards of a 21st Century educational system, technology will be integrated into instruction, learning outcomes, communication, and/or services and processes within the school district. Equipment that is specific to a vocational or academic program (i.e. digital microscopes or CNC machine tool technology) will be monitored by Vocational Advisory Boards and/or departmental processes and will not be considered within the technology plan.

Technology Team

The purpose of the Diman Technology Team is to research, develop, and monitor a Local Technology Plan (2018-2021) for the district. The Local Technology Plan provides professional development opportunities for all employees on existing and new educational technologies. Additionally, we continue to increase the integration of technology into vocational and academic instruction. The school continues to access the use of technologies by staff and students. We maintain and upgrade equipment at on a routine basis. This purpose is consistent with Diman's vision statement: "*Diman Regional Vocational Technological High School graduates will be occupationally skilled workers whose academic, vocational/technical, and workplace competencies will make them responsive to socioeconomic, technological, and environmental challenges in a complex and changing society.*"

The Diman Technology Team began the process of writing a strategic technology plan in spring 2009. The plan is based on the Massachusetts Recommended K-12 Technology Literacy Standards, the Massachusetts Educational Technology Advisory Council's School Technology and Readiness Chart and, in particular, the Department of Elementary and Secondary Education's Local Technology Plan Guidelines, which include five benchmarks. The Technology Team set five priorities based on the various state guidelines.

Technology Team Members:

| | |
|----------------|--------------|
| Elvio Ferreira | Deb Boscombe |
| Nate Byrnes | Tara Mancini |

Diman Technology Priorities

1. To enhance student proficiency in academic and technological learning standards
2. To advance the technological skills of administration, faculty, and staff to support their professional duties
3. To increase access and school-based support for technology at Diman
4. To promote the legal and ethical use of technology at Diman
5. To support and coordinate efforts with the Diman Data Team in order to improve data collection, analysis, planning, and communication with all stakeholders on issues related to technology

Technology Needs Assessment/Evaluation

- A. Each school year, department heads, administrators, and supervisors of key school functions will complete Technology Needs Assessment Surveys. The surveys will have two purposes: to assess whether the current technology is meeting the curricular needs of each department and to obtain information from stakeholders to be considered as the technology plan is periodically reviewed and updated. Results from the surveys will be reviewed and analyzed by the Diman Technology Team as in preparation for the 2021-2024 plan.
- B. The Technology Plan will be considered a living document and will be monitored on an ongoing basis, and revised by the Diman principal, school administrators, and Technology Team, in collaboration with the district administration. In addition, semi-annual assessment and evaluation processes will occur. The status of each goal will be designated as completed, ongoing, or in need of revision. Since technology planning is an on-going process, it will require the Diman Technology Team to meet regularly, monitor, review, and adjust the *Diman Technology Plan 2018-2021*, as needed.

Technology Budget

- A. For FY '19, the District has an approved budget including the following expenditures:
 - 1. Technology Software/hardware- \$240,431.00
 - 2. Technology Supplies - \$19,000.00
 - 3. Technology Salaries- \$141,453.00
 - 4. Technology Consultant- \$75,000.00
- B. The 2019 budget also includes funding for staffing and services both directly and indirectly related to this Technology Plan. i.e. IT Junior Assistant, Data Analyst, telephone services, etc.
- C. While there is not a specific budget line for technology professional development, the District does fund all Professional

Development in one expense line. The Assistant Superintendent/Principal, the Professional Development Committee, and the Diman Technology Team will coordinate efforts to ensure that the professional development goals/strategies in the technology Plan are realized.

- D. Please note that technology related, supplemental, and required services are funded in separate line items within the District's operational budget primarily because we are a single school District. Approved Professional Development funds for the District in FY 2019 is \$130,000.00. Departmental budgets, as well as the library budget also support the acquisition of technology in those particular areas. The District does leverage the use of federal, state, and private resources. Evidence of that use can be supported by reviewing the annual grant reports. The District will set aside funding annually for the co-payment of non-discounted items listed in the E-Rate application. Copies of the budget as well as Final Grant Reports are available from the Business Office.
- E. Minimally, a level funded budget in the identified areas, to which there is reference made in this plan (personnel, equipment, supplies, professional development, staffing, etc.), will be necessary for the next three years to maintain the goals and objectives in this plan. A 3%- 5% increase in technology equipment and supplies is recommended for each year of the plan.

Benchmark 2 - Technology Integration and Literacy

Technology Integration and Literacy

In 2014-2015, the Diman faculty was again surveyed regarding their technology literacy and integration skills, uses, and needs. Sixty-seven (67) teachers responded. An overwhelming majority of teachers responded that they regularly use technology for their professional duties (lesson planning, administrative tasks, communication, and collaboration). Overall, student's use of technology at Diman was seen as a weakness. A number of areas were also cited by faculty where they need and want technology professional development i.e. word processing, use of content specific tools such as simulations, graphing calculators, etc. to support student learning and research.

Some key areas of the survey were as follows:

- 79% of respondents indicated that they could easily access available technology at Diman.
- 82% indicated that they felt confident in their ability to integrate technology into their instruction.
- 70% indicated that they have a good variety of ideas and lessons for integrating technology into their teaching.
- 86% of respondents believe that integrating technology into their curriculum is important for student success.
- 40% were not aware of the resources available by the district that can help them learn how to integrate technology.
- 61% of respondents indicated that they were either unable or developing strategies for having their students use technology for solving problems in the real world
- 82% of the respondents feel confident in their ability to integrate technologies into their instruction.

It is important to keep in mind that for some programs, it may not be possible to incorporate daily instructional technology as we have defined technology for this plan. Approximately 50% of the Diman faculty are vocational instructors, who incorporate their vocational technologies within their daily instruction. In many cases, these technologies involve vocational program-specific computer software, sensors, and controls. All Diman freshmen take a *Computer Applications* course. Diman sophomore students are required to take a Computer Applications II course using Business Center 21 software. Data from the survey will be used to plan faculty professional development as well as student instructional goals.

Technology Staff

The technology coordinator and assistant technology coordinator provide support to the faculty and staff regarding technical problems. Additionally, maintenance contracts have been purchased for the Smart Boards as well as other technology.

The technology staff includes the following employees:

District Data Analyst- 1 FTE

Technology Coordinator – 1 FTE

Assistant Technology Coordinator- 1 FTE

IT Junior Assistant .5 FTE

Computer Applications Teachers- 2 FTE

Webmaster- .4 FTE

Library/Media Teacher- 1 FTE

Business Technology Teachers-4 FTE

Graphic Communication Teacher- 4 FTE

IT Consultant- .4 FTE

Benchmark 3 - Technology

Professional Development

The Diman Technology Leadership Team has identified professional development in technology as a priority. Professional development opportunities in the area of technology will be planned in cooperation /collaboration with the Diman Professional Development Committee based on the most recent technology self- assessment survey.

Previous faculty survey results/participant evaluations have indicated that various faculty members, who have presented technology workshops, and have been very effective.

In addition, faculty members are continuously encouraged to engage in online professional development, college courses, in-service and mentoring activities related to integrating technology into instruction. Attending technology conferences, participating in virtual activities (courses, seminars, etc.) and viewing webinars are also avenues available to faculty to learn about new technologies and best practices for using/integrating instructional technology.

Benchmark 4 – Accessibility of Technology

Hardware Access

The district has an average ratio of two students per high capacity internet connected computer. Additionally, the district has two computer labs. The library media center has twelve (12) computers for use in the area for faculty and students. The library media center has two (2) mobile laptop carts, available for faculty to “sign out” and use in classrooms, 74 Smart Boards, 600 scientific calculators, 450 graphing calculators, 35 scanners, 8 LCD projectors, 10 digital cameras, 850 laptops (3 laptop carts in general use and eleven (11) laptop carts in dedicated locations), 100 Netbooks, 40 Senteo Assessment Systems, 40 Smart Airliner Slates, and 2 Smart Document cameras. (4.A)

Assistive Technology

Diman is committed to providing Assistive Technology to meet the needs of students with cognitive and physical disabilities. Current Assistive Technology includes Alpha Smarts, Kindles, Smart Boards and Airliner Slates, Net books, FM Trainer, trackballs, large monitors, scanners, digital cameras, screen reading software, various instructional software programs, text-to-speech programs, audio books on CD/cassette, and iPads. (4.A)

Internet Access

The District provides connectivity to the Internet with a bandwidth of at least 1 GB in all classrooms. Wireless capabilities are available to all students, teachers, administrators, and staff throughout the school and within the LPN building

The network card for each computer is at least 1 GB. The district provides a minimum of 100 MB Cat 5 switched network.

Individuals have access to server space, as needed, for secure file sharing and back up. (4.A; 5.E; 4.D) Students have access to the internet outside of school.

Internet Access Outside of the School Day

| Location | Hours | Contact Information for updated hours/directions |
|---|---|---|
| Diman Regional Vocational Technical High School | School Library: 7:00 a.m. – 3:00 p.m. Computer labs: 6:30 a.m. – 3:15 p.m. | http://www.dimanregional.org |
| Fall River Main Library: | Monday - Thursday: 9:00 a.m. -9:00 p.m. Friday - Saturday: 9:00 a.m. – 5:00 p.m. | http://www.sailsinc.org/fallriver |
| Fall River East End Branch Library: | Monday - Tuesday: 9:00 a.m. – 5:00 p.m. Wednesday 9:00 a.m.-4:30 p.m. Thursday: 12:30 p.m. – 8:00 p.m. Friday - Saturday 9:00 a.m. - 4:30 p.m. | http://www.sailsinc.org/fallriver |
| Fall River South End Branch Library: | Monday-Tuesday: 9:00 a.m. – 5:00 p.m. Wednesday: 11: 00 a.m. – 7:00 p.m. Thursday: 9:00 a .m. – 5:00 p.m. Friday- Saturday: 9:00 a.m. - 4: 30 p . m. | http://www.sailsinc.org/fallriver |
| Bristol Community College Farley Learning Resources Center: | Monday - Thursday: 8:00 a.m. – 9:00 p.m. Friday: 8:00 a.m. – 6:00 p.m. Saturday: 9:00 a.m. – 6:00 p.m. Sunday: 11:00 a.m. – 6:00 p.m. | http://www.bristol.mass.edu/Academics/library/hours.cfm |
| Swansea Public Library | Monday - Thursday: 10:00 a.m. – 8:00 p.m. Friday: 10:00 a.m. – 5:00 p.m. Saturday: 10:00 a.m.-4:00p.m. Sunday: Closed | http://www.swansealibrary.org/swansea/hours.asp |
| Somerset Public Library | Monday- 11: 00 a.m.-6:00 p.m. Tuesday-Thursday: 11:00 a.m. – 8:00 p.m. Friday: 11:00 a.m. – 6:00 p.m. Saturday 9:00 a.m. - 12:00 p.m. Sunday: 2:00 p.m. – 5:00 p.m. | http://somersetpubliclibrary.org/hours.htm |
| Westport Public Library | Monday: 12:00 p.m. - 8:30 p.m. Tuesday -Wednesday: 10:00 a.m. - 5:00 p.m. Thursday: 12:00 p.m. - 8:30 p.m. Friday: 10:00 a.m. – 5:00 p.m. Saturday: 9:00 a.m. – 4:00 p.m. | http://www.westport-ma.com/library/index.html |

Benchmark 5 – E-Learning and Communications

E-Learning

The District supports the use of innovative e-learning strategies to expand staff/student learning opportunities. Moodle, a virtual learning platform is in use in several areas, teachers have had the opportunity for ongoing trainings, and a professional development session has been developed for all faculty and staff.

Diman offers online courses and academic assistance using JFYNetworks and other online-individualized remedial instruction. A number of virtual high school courses are also offered to students through Virtual High School.* Additionally, media resources are being piloted in Teachers Domain. (5.A; 5.B; 5.C)

* Founded by The Concord Consortium and Hudson Public Schools of Massachusetts 4 Clock Tower Place, Suite 510 Maynard, MA 01754

TEL: 978.897.1900

TheVirtualHighSchool.org

The VHS Collaborative offers a catalog of semester and full year courses in the Arts, Foreign Language, Language Arts, Life Skills, Math, Science, Social Studies, Technology and AP; Study to students in VHS member schools

Website

Our dynamic, database-driven site (www.dimanregional.org) serves the needs of several audiences: parents, students, teachers, staff, alumni, and community members. The Diman website is frequently updated.

The Diman website covers a wealth of information about the school. Examples on our website include school announcements, information about vocational and academic programs, student lunch menus, the daily Room 251 restaurant menu to curricular resources and details, school policies, sports scores and recaps, virtual tours, the student-written newspaper and literary magazine, application forms, etc. This information is also automatically translated into several different languages, at the option of the user. The site serves as a bridge from the school to the community and as a resource for people within and outside the school. Email is secure and archived. (5.D)

Benchmark 6 – Safety Security and Data Retention

The school district has acceptable use policies for both staff and students contained in the student and staff handbooks. The school district educates teachers and students through workshops and assemblies about appropriate behavior online. The school district complies with all federal and state laws, and local policies for archiving electronic communications produced by its staff and students. The district informs staff and students that any information distributed over the district or school network may be a public record.

Technology Acceptable Use Policies

Diman has, in place, acceptable use policies for administration, faculty, staff, and students.

I. NETWORK AND INTERNET ACCEPTABLE USE POLICY (STAFF)

Diman Regional Vocational Technical High School Internet, Computer and Technology Acceptable Use Policy

1. Introduction

This document formalizes the Internet, Computer and Technology policy for users at Diman Regional Vocational Technical High School All users, including students, teachers, administrators, and educational organizations are covered by this policy and are expected to be familiar with its provisions.

2. User Responsibilities

It is the responsibility of any person using Diman resources to read, understand, and follow these guidelines. In addition, users are expected to exercise reasonable judgment in interpreting these guidelines and in making decisions about the appropriate use of Diman resources. Any person with questions regarding the application or meaning of these guidelines should seek clarification from the Assistant Superintendent-Director/Principal. Use of Diman resources shall constitute acceptance of the terms of these guidelines.

A. Diman Administrator Responsibilities

It is the responsibility of the person who has been designated as a Diman administrator to ensure that only educators and students in his/her district or organization are registered users of Diman. The administrator is responsible for making certain that the educators and students in the district or organization understand and abide by the Acceptable and Unacceptable Uses policy as stated in this document (Paragraph 3). If a Diman administrator has reason to believe that a user (educator or student) is misusing the system, the administrator has the right to request that Diman allow him/her to access to the user's account in order to review the use of Diman tools by the user. It is also the responsibility of the administrator to report any misuse of the system to Diman authorities.

B. Diman Educator Responsibilities

It is the responsibility of educators who are using Diman resources with students to teach students about safe and responsible use of the Internet. Educators are responsible for monitoring students' use of these resources, and to intervene if students are using them inappropriately. Educators should make sure that students understand and abide by the Acceptable and Unacceptable Uses policy as stated in this document. If an educator has reason to believe that a student is misusing the system, he or she has the right to request that Diman allow him/her to access the student's account in order to review the use of any Diman resources used by the student. It is also the responsibility of the teacher to report any misuse of the system to his/her Diman administrator.

C. Diman Student Responsibilities

It is the responsibility of students, who are using Diman resources, to learn about safe and responsible use of the Internet. They are responsible to use these resources appropriately. They must abide by the Acceptable Use policy as stated in this document. If a student is misusing the system, educators shall report the misuse, at which time Diman has the right to discontinue his/her use of the system.

3. Acceptable and Unacceptable Uses

The resources available to Diman users are to be used for educational purposes. Users should not use Diman to store any files that are not educational.

It is unacceptable for users to use these resources for:

- Furthering any political or religious purpose.
- Engaging in any commercial or fundraising purpose.
- Sending threatening or harassing messages.
- Gaining unauthorized access to computer or telecommunications networks.
- Interfering with the operations of technology resources, including placing a computer virus on any computer system, including the Diman system.
- Accessing or sharing sexually explicit, obscene, or otherwise inappropriate materials.
- Intercepting communications intended for other persons.
 - Attempting to gain unauthorized access to the Diman system.
 - Logging in through another person's account or attempting to access another user's password or files.
 - Sending defamatory or libelous material concerning a person or group of people.
 - Furthering any illegal act, including infringing on any intellectual property rights.
 - Downloading, uploading, or distributing any files, software, or other material that is not specifically related to an educational project.
 - Downloading, uploading, or distributing any files, software, or other material in violation of federal copyright laws.

As with any other form of communication, these systems may not be used, to transmit, store messages, or other data that are inappropriate under existing Diman or district policies, such as those prohibiting sexual harassment. Users may not create, send, or store messages or other data that are considered offensive, contain sexually explicit material, or otherwise offensively address the age, race, ethnicity, gender, sexual orientation, religious or political beliefs, national origin, or disability of a person or a group of people. Users also may not create, send, or store messages pertaining to dangerous devices such as weaponry or explosive devices. Users should take all reasonable precautions against receiving or downloading messages, images, or other data of this sort.

4. No Expectation of Privacy

Diman resources are the property of the Greater Fall River Vocational School district and are to be used in conformance with these guidelines. Diman retains the right to inspect any user's Virtual Hard Drive (VHD) and the files it contains. Diman also has the right to give permission to the teachers, the school administrators, and the parents of any student to review the use of Diman tools by a student who they think may be misusing the system. Users are advised that messages in discussion forums, including deleted messages, are regularly archived and can be retrieved. In addition, an Internet firewall automatically checks all data moving between the local area network and the Internet and logs the sending and receiving destinations. Use of Diman technology resources constitutes consent for the Diman staff to monitor and/or inspect any files that users create, any messages they post or receive, and any web sites they access.

5. Passwords

Each user shall be required to use and maintain a password that was created according to Diman guidelines. This password is to be used to access the Diman computer network and any resources that reside within the network and require password access. The users must take precautions to maintain the secrecy of their password so that other users will not be able to utilize that password for malicious purposes. If a user suspects that someone has discovered the user's password, the user should change the password immediately. Diman users are responsible for all activity under their accounts.

6. Violations

Failure to observe these guidelines shall subject users to termination of their Diman accounts. Any inappropriate activities by the users will be grounds for disciplinary action up to and including termination of employment. Diman will also advise law enforcement agencies of illegal activities conducted through any Diman resources and will cooperate fully with local, state, and/or federal officials in any investigation related to illegal activities conducted through Diman resources.

7. Disclaimers

Diman makes no warranties of any kind, either expressed or implied, for Diman's services and resources. Diman is not responsible for any damages incurred, including, but not limited to: loss of data resulting from delays or interruption of service, loss of data stored on Diman resources, damage to personal property used to access Diman resources; for the accuracy, nature, or quality of information stored on Diman resources or gathered through Diman or the Internet; for unauthorized financial obligations incurred through Diman-provided access. Further, even though Diman may use technical or manual means to limit student access, these limits do not provide a foolproof means for enforcing the provisions of this policy.

II. NETWORK AND INTERNET ACCEPTABLE USE POLICY FOR STUDENTS

Diman Regional Vocational Technical High School provides technology resources to its students for educational purposes. The goal in providing these resources is to promote educational excellence in Diman by facilitating resource sharing, innovation and communication with the support and supervision of the faculty and administration. The use of technology is a privilege, not a right.

With access to computers and people all over the world comes the potential availability of material that may not be of value in the context of the school setting. Diman firmly believes that the value of information, interaction, and the available research capabilities outweighs the possibility that students may obtain materials not consistent with the educational goals of the District.

Diman Regional Vocational Technical High School expects that all students use the computers and computer networks in a responsible, ethical and respectful manner. This policy intends to clarify these expectations. Violations of this policy may result in disciplinary action, a loss of computer privileges, and if appropriate, legal action.

Diman Regional Vocational Technical High School will cooperate with local, state or federal officials conducting an investigation related to any allegedly illegal activities conducted through the Diman computer network. Further, any work on school computers generates an electronic record that may be subject to public disclosure.

Students may not use personal laptop computers in school. Students who use school assistive technology devices must turn in the device at the end of each school year or upon request by a school administrator. Failure to do so, or damage or loss of such device will result in the student being required to pay replacement costs.

Users are expected to abide by the following guidelines for acceptable use of technology resources including the Internet. Users are personally responsible for their actions in accessing and using the school's computer resources.

- Computers, peripherals, and other technologies, such as personal assistants, are to be used for legitimate educational activities.
- Use the Internet only to access educationally relevant materials. Use of "remote proxies" in an attempt to visit blocked websites is a violation of this policy.
- Illegal activities, including violation of copyright or other contracts, and unauthorized access including "hacking," are strictly forbidden.
- Respect the rights of copyright owners and do not plagiarize work that you find on the Internet.
- Cite your sources. The MLA style for electronic sources is recommended. (*Http: //www. in la.org*)
- Use appropriate language and do not swear, use vulgarities, or any other inappropriate language.
- Do not participate in "chat rooms" or "instant messaging."
- Do not knowingly post or forward any information that is not true.
- Do not post private information about another person or post personal communications without the author's consent.
- Do not send any material that is likely to be offensive or objectionable to recipients.
- Do not reveal your personal address or phone number or the personal address or phone number of other students, faculty, or administration.
- Do not trespass into anyone else's files, folders, or work.
- Do not share your personal account with anyone or leave the account open or unattended.
- Do not use an account assigned to another user.
- Do not attempt to download or install any software.
- Do not do anything to damage any computer, software, system, or service that you are using and never send anyone else a file or command that may damage his or hers.
- Network storage areas may be reviewed by network administrators to maintain system integrity and to ensure that the students are using the system responsibly.
- Computer storage space is not private and contents may be viewed at any time.

It is unacceptable for users to access school resources for:

- Furthering any political or religious purpose;
- Engaging in any commercial or fundraising purpose;
- Sending threatening or harassing messages;
- Gaining unauthorized access to computer or telecommunications networks;
- Interfering with the operations of technology resources, including placing a computer virus on any computer system, including the Diman system, accessing or sharing sexually explicit, obscene, or otherwise inappropriate materials;
- Intercepting communications intended for other persons;
- Attempting to gain unauthorized access to the Diman system;
- Logging in through another person's account or attempting to access another user's password or files;
- Sending defamatory or libelous material concerning a person or group of people;
- Furthering any illegal act, including infringing on any intellectual property rights;
- Downloading, uploading, or distributing any files, software, or other material that is not specifically related to an educational project;
- Downloading, uploading, or distributing any files, software, or other material in violation of federal copyright laws; and
- Students are not allowed to use teacher computers at any time.

Sanctions

1. Violators will result in a loss of computer access.
2. Additional disciplinary action may be taken by the administration in accordance with existing practice regarding inappropriate language or behavior.
3. When applicable, law enforcement agencies will be involved.

Diman Regional Vocational Technical High School Three Year Technology Plan

2018 - 2021

School Technology Improvement Planning Goals

Performance Indicators

The following “Action Plan” describes the strategies and activities that will be developed and implemented in order to support the integration of technology at Diman.

Major Goal Categories

Five (5) main categories were developed as part of the school technology improvement planning goals process. One goal was created for each category.

- Data Collection*
- Technology Access
- Student and Faculty Proficiency
- Hardware and Software
- Technology Integration

*Note: Diman has established a *Diman Data Team*, who works collaboratively with the Technology Team, as needed.

ACTION PLAN

DATA COLLECTION TO SUPPORT TECHNOLOGY

Organize and Coordinate processes and methods for collecting, reporting, and sharing information
Expand and update current database for informed and relevant decision-making and planning for technology use

| Strategy | Responsible Persons | Resources Needed | Deadline | Desired Outcome | Status 18-19 | Status 19-20 | Status 20-21 | Comments |
|---|------------------------------------|---------------------------------|------------------------------|--|--------------|--------------|--------------|--|
| Administer annual school survey to faculty to help access tech. knowledge, skills, use, and technology PD needs of faculty/admin. | Principal/designee (s), Tech. Team | Data Analyst Technology Team | Nov. 1 (2018, 2019, 2020) | Survey will be administered and analyzed to inform faculty needs and faculty technology PD needs | | | | School can make plans/adjustments to address any apparent faculty needs Include on survey Establish longitudinal data base |
| Administer student technology survey to help determine student tech. skills, as related to the MA state standards | Principal/Designee (s) Tech. Team | Data Analyst Technology Team | Dec.1 (2018, 2019, 2020) | Survey will help assess student progress toward proficiency in tech. knowledge and skills, as they relate to state standards | | | | School can then make plans/adjustments to address any apparent student needs Include on survey questions to ascertain information about student access to technology at school, home, community Establish longitudinal data base |

Technology Access

Expand student and faculty access to updated technology

Past “needs assessments,” indicate that more information about available technology is necessary at Diman

| Strategy | Responsible Persons | Resources Needed | Deadline | Desired Outcome | Status 18-19 | Status 19-20 | Status 20-21 | Comments |
|--|--|---|--------------------------|---|--------------|--------------|--------------|----------|
| Adopt and prioritize the concept of 100% technology access for all students (9-11) and all faculty | Diman School Committee; Superintendent-Director; Assistant Superintendent/Principal | Redistribution of funding in building; updated infrastructure (electrical, wireless internet, etc.) to support technology | June, 2019 | The adoption concept of “Technology for All” (faculty and students) and consequent prioritizing of same will allow for the Technology Plan to become fully implemented | | | | |
| Provide all faculty with laptops and docking stations for use in the classroom and at home (contingent upon above) | Superintendent-Director; Assistant Superintendent/Principal; Diman School Committee | Redistribution of funding in building; updated infrastructure (electrical, wireless internet, etc.) to support technology | August, 2018- June 2021 | All faculty will be using laptops and docking stations, which will be on a common updated platform and linked with student technological devices and school information and learning systems for all teacher functions i.e. attendance, teacher websites, student e-mails, communications, etc. | | | | |
| Provide all students (9-11) a portable technological device to use at school and at home | Superintendent-Director; Assistant Superintendent/Principal; Diman School Committee; IT dept.; Designee (es); | Redistribution of funding in building; updated infrastructure (electrical, wireless internet, etc.) to support technology | August 2018- August 2021 | All students 9-11 and all faculty will have their own technological device to access the internet, use for classroom lessons and assignments which involve integrated technology, and access textbooks online | | | | |

| | | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| | | | | | | | | |
|--|--|--|--|--|--|--|--|--|

Faculty and Student Proficiency in Technology

Promote student and faculty proficiency in technological knowledge and skills

Past data indicate an ongoing need for students and faculty to be current in their skills and knowledge related to the available technological tools available and developments in technology

| Strategy | Responsible Persons | Resources Needed | Deadline | Desired Outcome | Status 18-19 | Status 19-20 | Status 20-21 | Comments |
|--|--|--|------------------------------|---|--------------|--------------|--------------|----------|
| Plan and implement technology PD for all Faculty and Staff | Principal/Designee(s), PD Committee/, Technology Team | Faculty survey results,; designated time for technology PD, funding; trainers, collaboration between Tech. Team-Admin.-PD Committee; a Technology Integration Specialist (PT/FT) | Ongoing August '18- June '21 | Faculty technology PD training needs (knowledge, proficiencies, and skills) will be identified and addressed on an ongoing basis | | | | |
| Hire a Technology Integration Specialist | Superintendent-Director; Assistant-Superintendent/Principal; Diman School Committee (approval) | Redistribute/re-allocate funding within established budget | August, 2019 | The Technology Integration Specialist will work with academic and vocational teachers to ensure the integration of technology into the curriculums, provide support and resources to teachers, and to provide ongoing technology PD for teachers | | | | |
| Hire a Director of Information Technology | Superintendent-Director; Assistant-Superintendent/Principal; Diman School Committee (approval) | Redistribute/re-allocate funding within established budget | August, 2019 | The Director of Information will oversee the technology systems) and programs, oversee IT department and the Data Analyst, ensure the successful implementation of "technology for all program", create and sustain the master schedule, oversee the apps, computerized programs and e-mail computerized communications for GFRSD | | | | |

| Strategy | Responsible Persons | Resources Needed | Deadline | Desired Outcome | Status 18-19 | Status 19-20 | Status 20-21 | Comments |
|--|--|--|-----------------------|---|--------------|--------------|--------------|----------|
| Implement the MA Curriculum Frameworks Technology and Literacy Standards and Expectations at Diman | Principal/Designee(s) Technology Integration Specialist (Director of Information Technology) | Students having 100% access to technology; a local curriculum (virtual) based upon state frameworks; time; assessment system | August 2018-June 2021 | Students will become and demonstrate that they are technologically proficient. They will meet and exceed state technology standards | | | | |

Technology Hardware and Software

Develop a District/school plan for acquiring and managing technology hardware/software
Data indicate an ongoing need for technology upgrading and a technology management system

| Strategy | Responsible Persons | Resources Needed | Deadline | Desired Outcome | Status 18-19 | Status 19-20 | Status 20-21 | Comments |
|--|---|---|--|---|--------------|--------------|--------------|--|
| Acquire and distribute technology for students (9-11) and all faculty | Superintendent-Director, Diman School Committee, Assistant Superintendent/Principal | Funding/Re-distribution/re-allocation of funding Additional academic/vocational support for classroom teachers | Phase into school: September 2018-September, 2021 | All students 9-11 and all faculty will have their own technological device to access the internet, use for classroom lessons and assignments which involve integrated technology, and access textbooks online | | | | An amended technology integration plan would be needed to implement this strategy |
| Complete implementation of school-owned software and hardware inventory system | Principal/Designee IT dept. | IT personnel | August, 2019 and ongoing updates | All school owned hardware and software will be identified, labeled, and documented. This procedure will be updated both ongoing (as equipment arrives) and verified annually | | | | Diman will have an ongoing, updated documented record of school-owned hardware and software, including locations, etc. |

Technology Integration into Academic and Vocational Instruction
 Expand technology integration into academic and vocational instruction
 Past data indicate an ongoing need for technology integration at Diman

| Strategy | Responsible Persons | Resources Needed | Deadline | Desired Outcome | Status 18-19 | Status 19-20 | Status 20-21 | Comments |
|---|--|---|----------------------|--|---------------------|---------------------|---------------------|-----------------|
| Hire a Technology Integration Specialist | Superintendent-Director; Assistant-Superintendent/Principal; Diman School Committee (approval) | Redistribute/re-allocate funding within established budget | August, 2019 | The Technology Integration Specialist will work with academic and vocational teachers to ensure the integration of technology into the curriculums, provide support and resources to teachers, and to provide ongoing technology PD for teachers | | | | |
| Provide virtual and actual lesson examples of technology integrated into content for academic and vocational teachers | Academic and Vocational Coordinators Technology Integration Specialists | Time; development/identification of resources i.e. sites, videos, virtual webinars, virtual courses, etc.; | Sept. 2018-June 2021 | Provide examples and support for teachers ,as they integrate technology into their content/lessons/teaching | | | | |

Appendix 1

Massachusetts Technology Literacy Standards Grades 9 through 12 – Technology Standards and Expectations

Throughout high school, as students take courses to prepare themselves for college and the world of work, they should acquire increasingly sophisticated technology skills. Depending on the pathways and courses they choose to take, high school students will become more adept with certain technology tools than others. Moreover, as the curriculum demands more complicated learning tasks, students will discover advanced capabilities in tools such as database and spreadsheet applications.

Starting in high school, students are selecting specific courses to prepare themselves for college and/or entry into the world of work. To accommodate the needs of high school students and teachers better, this publication lists technology skills for all the high school years together, rather than listing the skills by individual grade levels. Teachers should integrate the appropriate technology skills into their courses to help their students learn those subject areas and/or prepare for those careers.

During high school, students should have the opportunity to use more specialized technology tools that enhance their learning. These might include simulation software, geographic information systems, computer-aided design software, or any of a wide variety of content-specific tools. In addition, students should have the opportunity to learn how to write code in a commonly used programming language.

By the completion of high school, students should have developed an appreciation for the capabilities and capacities of technology, as well as an understanding of how these tools can be used for lifelong learning. In addition, students should be knowledgeable about the role technology plays in various fields of work, enabling them to better plan for their careers in the 21st century.

Standard 1. Demonstrate proficiency in the use of computers and applications, as well as an understanding of the concepts underlying hardware, software, and connectivity.

Basic Operations

- G9-12: 1.1 Identify the platform, version, properties, function, and interoperability of computing devices including a wide range of devices that compute and/or manage digital media.
- G9-12: 1.2 Use online help and other support to learn about features of hardware and software, as well as to assess and resolve problems.
- G9-12: 1.3 Install and uninstall software; compress and expand files (if the district allows it).
- G9-12: 1.4 Explain effective backup and recovery strategies.
- G9-12: 1.5 Explain criteria for evaluating hardware and software appropriate for a given task (e.g., features, versions, capacity).
- G9-12: 1.6 Demonstrate keyboarding techniques,¹ including the use of keyboard shortcuts, to complete assignments efficiently and accurately. (For students with disabilities, demonstrate alternate input techniques as appropriate.)
- G9-12: 1.7 Identify and assess the capabilities and limitations of emerging technologies.

¹ By the end of eighth grade, students should have keyboarding skills between 25-30 wpm with fewer than five errors.

Word Processing/Desktop Publishing

- G9-12: 1.8 Apply advanced formatting and page layout features when appropriate (e.g., columns, templates, and styles) to improve the appearance of documents and materials.
- G9-12: 1.9 Use editing features appropriately (e.g., track changes, insert comments).
- G9-12: 1.10 Identify the use of word processing and desktop publishing skills in various careers.

Database

- G9-12: 1.11 Explain the importance of designing the structure of a database to meet its intended goals.
- G9-12: 1.12 Duplicate the structure of a database without data.
- G9-12: 1.13 Save database files in various formats.
- G9-12: 1.14 Manipulate non-alphanumeric digital data (e.g., geospatial data from MassGIS², images, audio) within a database.
- G9-12: 1.15 Define the term “metadata,” and explain how metadata describes the structure and workings of an organization's use of information.
- G9-12: 1.16 Use database features to create mailing labels, form letters, and perform mail merges.
- G9-12: 1.17 Identify the use of database skills in various careers.

Spreadsheet

- G9-12: 1.18 Define and use functions of a spreadsheet application (e.g., sort, filter, find).
- G9-12: 1.19 Enter formulas and functions; use the auto-fill feature in a spreadsheet application.
- G9-12: 1.20 Explain and use advanced formatting features of a spreadsheet application (e.g., reposition columns and rows, add and name worksheets).
- G9-12: 1.21 Differentiate between formulas with absolute and relative cell references.
- G9-12: 1.22 Use multiple sheets within a workbook, and create links among worksheets to solve problems.
- G9-12: 1.23 Import and export data between spreadsheets and other applications.
- G9-12: 1.24 Create and use pivot tables.
- G9-12: 1.25 Explain how various formatting options are used to convey information in charts or graphs.
- G9-12: 1.26 Identify the use of spreadsheet skills in various careers.

Internet, Networking, and Online Communication

- G9-12: 1.27 Use search engines and online directories. Explain the differences among various search

engines and how they rank results.

G9-12: 1.28 Explain and demonstrate effective search strategies for locating and retrieving electronic information (e.g., using syntax and Boolean logic operators).

G9-12: 1.29 Describe good practices for password protection and authentication.

G9-12: 1.30 Demonstrate a basic understanding of addressing schemes (e.g., IP addresses, DHCP, DNS).

G9-12: 1.31 Identify career options in network technologies.

Multimedia

G9-12: 1.32 Identify technology tools (e.g., authoring tools) that can be used to create a multimedia product.

G9-12: 1.33 Use a variety of applications to plan, create, and edit multimedia products (e.g., slide presentations, videos, animations, simulations, podcasts).

G9-12: 1.34 Link information residing in different applications (e.g., linking a chart in a word-processing document to the spreadsheet where it was created).

G9-12: 1.35 Identify career options in multimedia and software development.

Web Authoring

G9-12: 1.36 Distinguish between effective and ineffective Web site designs; explain the reasons.

G9-12: 1.37 Explain terminology related to Web page authoring (e.g., HTML, URL, links, browsers, plug-ins, Web servers).

G9-12: 1.38 Use HTML or Web-authoring tools to create, edit, and publish well organized Web sites with effective navigation.

G9-12: 1.39 Explain basic practices that contribute to a Web site's accessibility to people with disabilities (e.g., using alternative text, captioning, consistent structure).

G9-12: 1.40 Explain how to test and debug Web files for quality assurance.

G9-12: 1.41 Identify career options in Web design, development, and management.

Standard 2. Demonstrate the responsible use of technology and an understanding of ethics and safety issues in using electronic media at home, in school, and in society.

Ethics

- G9-12: 2.1 Demonstrate compliance with the school's Acceptable Use Policy.
- G9-12: 2.2 Explain issues related to the responsible use of technology (e.g., privacy, security).
- G9-12: 2.3 Explain laws restricting the use of copyrighted materials.
- G9-12: 2.4 Identify examples of plagiarism, and discuss the possible consequences of plagiarizing the work of others.
- G9-12: 2.5 Write correct in-text citations and reference lists for text and images gathered from electronic sources.
- G9-12: 2.6 Give examples of the appropriate and responsible use of communication tools (e.g., chats, instant messaging, blogs, wikis).
- G9-12: 2.7 Discuss misuse of technology for personal and commercial reasons (e.g., software piracy, unauthorized file sharing/downloading, virus spreading, and hacking); explain possible consequences.

Society

- G9-12: 2.8 Design and implement a personal learning plan that includes the use of technology to support lifelong learning goals.
- G9-12: 2.9 Evaluate the authenticity, accuracy, appropriateness, and bias of electronic resources, including Web sites.
- G9-12: 2.10 Analyze the values and points of view that are presented in media messages.
- G9-12: 2.11 Describe devices, applications, and operating system features that offer accessibility for people with disabilities.

Health and Safety

- G9-12: 2.12 Evaluate school and work environments in terms of ergonomic practices.
- G9-12: 2.13 Describe and use safe and appropriate practices when participating in online communities (e.g., discussion groups, blogs, social networking sites).
- G9-12: 2.14 Explain and use practices to protect one's personal safety online (e.g., not sharing personal information with strangers, being alert for online predators, reporting suspicious activities).
- G9-12: 2.15 Explain ways individuals can protect their technology systems and information from unethical users.

Standard 3. Demonstrate the ability to use technology for research, critical thinking, problem solving, decision making, communication, collaboration, creativity, and innovation.

Research

- G9-12: 3.1 Devise and demonstrate strategies for efficiently collecting and organizing information from electronic sources.
- G9-12: 3.2 Compare, evaluate, and select appropriate electronic resources to locate specific information.
- G9-12: 3.3 Select the most appropriate search engines and directories for specific research tasks.
- G9-12: 3.4 Search for information within an electronic source (e.g., using the find command).

Problem Solving

- G9-12: 3.5 Explain and demonstrate how specialized technology tools can be used for problem solving, decision making, and creativity in all subject areas (e.g., simulation software, environmental probes, computer-aided design, geographic information systems, dynamic geometric software, graphing calculators, art and music composition software).

Communication

- G9-12: 3.6 Use a variety of media to present information for specific purposes (e.g., reports, research papers, presentations, newsletters, Web sites, podcasts, blogs), citing sources.
- G9-12: 3.7 Demonstrate how the use of various techniques and effects (e.g., editing, music, color, rhetorical devices) can be used to convey meaning in media.
- G9-12: 3.8 Use online communication tools to collaborate with peers, community members, and field experts as appropriate (e.g., bulletin boards, discussion forums, listservs, Web conferencing).
- G9-12: 3.9 Plan and implement a collaborative project with students in other classrooms and schools using telecommunications tools (e.g., e-mail, discussion forums, groupware, interactive Web sites, videoconferencing).
- G9-12: 3.10 Complete at least one online credit or non-credit course or tutorial; discuss the benefits and disadvantages of this method of learning.

Gaining Technology Skills While Learning the Content of the Curriculum

Anyone who has taken a training course in the use of a spreadsheet, for example, knows how quickly we forget the skills unless we can apply them in our work on a regular basis. Whether technology instruction takes place in the classroom or in the computer lab, it is important that students be able to apply their newly acquired skills to subject matter learning. For example, a student who has gathered data for a science project and needs to organize the data in a database will see a reason for learning about the features and function of a database. This is context-sensitive learning in which technology skills instruction is centered on the curriculum.

Initial technology skills instruction needs to be provided by someone who is proficient in the use of that technology tool. Although some teachers are skilled enough with technology to teach their students to use the tools within the context of the curriculum content, other teachers may not be prepared to do this. A possible solution is for a staff person with technology expertise (such as an instructional technology specialist, library teacher, or another classroom teacher acting as a mentor) to provide mentoring or to co-teach alongside the teacher.

As technology tools become an integral part of the learning environment, and as students gain the knowledge and skills to use them appropriately, new opportunities for learning open up. Dynamic geometric applets, for example, can help students visualize and understand complex mathematics concepts. Simulation software enables students to investigate models of real-world problems such as climate change and population growth. Basic tools such as spreadsheet and database applications can be applied across the curriculum to analyze and solve problems. Even basic word processing software can encourage students to organize their thoughts and revise their work.

The following scenarios show how technology can be applied in the classroom so that students acquire these skills while addressing the standards of the curriculum frameworks. The scenarios, which were originally published by the Massachusetts Department of Elementary and Secondary Education in its technology toolkit, were drawn from school districts that participated in Project MEET, from districts that received instructional technology grants from the Department, and from award-winning teachers.

Each scenario features a lesson unit on a specific curriculum topic. Several criteria were used to select these lesson units. First, the lesson needed to have a clear curriculum focus that was aligned with the state's *Curriculum Frameworks*. Second, the lesson had to integrate learning technology skills with learning the curriculum content. Third, the lesson also had to address the fact that students have varying abilities, backgrounds, and interests. Finally, the lesson needed to have a way to evaluate how much students had learned.