

**Athol-Royalston Regional School District
Three-Year Technology Plan
Fiscal 2012-2015**

Contents

<u>Background</u>	<u>2</u>
<u>Vision and Mission Statement</u>	<u>3</u>
<u>District Goals</u>	<u>4</u>
<u>District Resources and Evaluation</u>	<u>5</u>
<u>Local Internet Access</u>	<u>6</u>
<u>Accessibility of Technology</u>	<u>7</u>
<u>School Connectivity</u>	<u>8</u>
<u>Computer Inventory</u>	<u>9</u>
<u>Technology Integration Goals</u>	<u>10</u>
<u>CIPA Compliance</u>	<u>11</u>
<u>Internet Use Policy</u>	<u>12</u>
<u>Internet Use Contract</u>	<u>13</u>
<u>Technology Professional Development</u>	<u>14</u>
<u>Budget and Resources</u>	<u>15</u>
<u>Ongoing Evaluation</u>	<u>16</u>
<u>Amendment</u>	<u>17</u>

1. Background

The Athol-Royalston Regional School District is located in the rural, economically-depressed area of northern Worcester County (north-central Massachusetts). Athol and Royalston can best be described as typical rural New England communities. Athol is a mill town where blue-collar workers represent over half the employed population. Manufacturing is by far the leading source of employment. The L.S. Starrett Company remains the largest, most stable industry in Athol, employing in excess of 1,000 workers. Other major employers include Athol Memorial Hospital, Duall Plastics, Athol-Royalston Regional School District, and the Town of Athol.

During the past decade, few significant changes have occurred in the local economy. In Royalston, the majority of its residents are employed outside of the community. The towns of Athol and Royalston are members of a regional school district, grades Pre-K to 12, which is governed by a 10-member regional school committee. The committee is comprised of seven Athol and three Royalston members (Athol's population is significantly greater than that of Royalston). The total school population for FY 11 is 1,629 students; with one high school, one middle school, four elementary schools and one school housing an alternative program. The district's student population is predominantly caucasian and English-speaking.

Local taxation supports a portion of the school department budget with the remainder of funding coming from state, federal and other resources. Plagued by failed overrides, the district has been forced to make drastic cuts to its budgets resulting in the loss of numerous initiatives. While an override was passed in FY 07 and the district obtained a long-term loan from the state, these measures primarily allowed the district to maintain level funding and cover deficits, rather than institute new programs. Similarly, assessments for school choice and higher than average costs for special education (due to a large number of students receiving services) take a serious toll on district finances.

2. Vision and Mission Statement

The Athol-Royalston Regional School District is committed to preparing its students for entry into a technologically complex society with knowledge, ethics, technological and critical thinking skills necessary to become contributing members of the local and global communities. It is our mission to utilize technology in all aspects of the curriculum including instruction, research and communication management, thereby promoting lifelong learning throughout the school community. We envision a learning atmosphere rich in technology-based resources where students are discerning users of technology in pursuit of knowledge; where teachers embrace technology to design meaningful learning experiences; where parents, teachers and administrators use technology to share information in ways that promote the district's strategic plan and the individual schools' improvement plans.

3. District Goals

The Athol-Royalston Regional School District will strive to:

- Incorporate the appropriate and effective use of technology into classrooms on a daily basis as recommended by the Massachusetts Technology Standards;
- provide all schools with the hardware and software needed to support the effective integration of technology into approved educational programs;
- provide Internet access inside and outside of school, both during and after school hours;
- train all staff in the appropriate and effective use of technology;
- use technology to communicate efficiently internally, with parents and with the local and global community;
- provide standards-based technology instruction in an equitable manner to all students;
- nurture the creativity, inventiveness and curiosity of its students by cultivating real-world problem solving skills using technology resources where applicable;
- introduce its students, via the internet and distance learning technologies, to a variety of domains of knowledge and world cultures;
- provide both economic parity and gender parity with respect to student computer access and use;
- provide high quality professional development opportunities to its teachers and staff so that they are able to use the technology resources available to them to more effectively and efficiently achieve their professional goals as well as the goals of their school and the district;
- utilize technology to maximize efficiency and minimize costs in the administration of school and district business and operations; and
- provide the tools and software to disseminate any required data collection, including but not limited to attendance data, MCAS data, SIMS data, Financial data, student grading systems and any required reporting by the Massachusetts Department of Education, State and Federal agencies.

4. District Resources and Evaluation

District Technology Team

The Athol-Royalston Regional School District has a technology team consisting of representatives from administration, members from the high school, middle school, and elementary staffs and the central office support staff. This team is charged with selection and implementation of a student information management system, as well as development of technology-centered curricula and professional development.

Budget

The annual operating budget contains line items for the following technology components:

- Staffing
- Hardware
- Software
- Support Services
- Professional Development
- Contracted Services

The district leverages the use of federal, state and private resources.

As the result of fiscal constraints, the budget for technology funding has taken a back seat to staffing and other necessary district services. It is the district's goal to educate the member towns as to the importance of adequately funding budgets to address these needs. Staff computing facilities, as well as the computer resources at other district schools have been addressed through a series of leases ending in FY 11 and FY 12. We have secured multiple grants to implement a computer lab and promethean boards/ expression clickers at the middle school, smartboards/ smart response clickers in all elementary schools and the high school, ipads, notebooks and carts for special classrooms, with professional development to support staff and student use and implementation throughout the district.

Evaluation

We are using the TSAT and Survey Monkey to assess current staff and student proficiency. Finally, a staff professional development committee has been formed to evaluate PD needs among district staff; educational technology is a key concern of this committee. We are awaiting results for feed back from staff regarding the trainings presented this year, to reassess and plan for the upcoming year.

5. Local Internet Access

The Athol-Royalston Regional School District provides an up-to-date web site that contains information for parents and the community at large. The district website is located at www.arrsd.org. Athol High School and Athol-Royalston Middle School have school-tailored web sites (www.atholhigh.org and www.arms2000.org, respectively). The Elementary Schools have started the process of establishing webpages for their respective schools, with 4 of 5 on line. By the end of this school year, all schools have established a school website, which posts pertinent school information.

Currently, Athol High School provides internet access 1 hour prior to the start of school and 2-3 hours after school; similarly the Athol-Royalston Middle School provides 2-3 hours of after school Internet access. In addition, local access is available at the following locations:

Athol Public Library
568 Main Street
Athol MA 01331
978-249-9515

McDonald's
Free WiFi

Bruce's Browser Inc.
1497 Main Street
Athol MA 01331
978-249-3978

Athol House of Pizza
Free WiFi

Students are encouraged to use these resources whenever possible. Similarly, in Athol, broadband Internet access is widely available. Royalston, however, remains limited to dial-up access due to a lack of Internet Service Providers.

6. Accessibility of Technology

The Athol-Royalston Regional School District has made significant strides in FY 10 and 11 to ensure the availability of technology for education. In particular, student to computer ratios are now less than 5:1 at the high school. The middle school has similar levels of connectivity. The innovative use of thin clients and strategic development of computer lab facilities has allowed teachers to more fully integrate technology into their curricula.

As a result, the district is now turning its attention to lifecycle funding, i.e., ensuring that these computers remain up to date and useful. Leasing models have been put into place reducing most computer lifecycles at the high school to 3-4 years, depending upon their application. Similarly, training students and staff to effectively use these technologies remains an important goal.

The middle school and elementary schools are especially in need of a technology refresh and the district will continue to attempt to allocate funds whenever possible to updating technology across the board. As with the high school, leasing models are being explored to make technology a fixed cost for the district, rather than a series of one-time expenditures.

7. School Connectivity

All classrooms and instructional/staff computers at the high school and middle schools are connected to the Internet via Local Area Networks. The vast majority of elementary classrooms are also connected to the Internet. The district has set the following goals for school connectivity over the next two years:

- All classrooms will be connected to the Internet
- All computers will be connected to the Internet (unless a valid reason for using a standalone computer is identified)
- Hours outside the school day during which students can access the Internet will be extended
- All administrative computers can access all mission-critical district-wide network applications

In addition, a new district-wide student information management system will be implemented and all users will be fully trained on its use; all administrative computers will have access to this system and parents will have access to a subset of the data it contains.

8. Computer Inventory

DESE Long Term Plan

9. Technology Integration Goals

1. Teacher and Student Use of Technology

A. Outside of the Classroom - At least 85% of teachers use technology everyday, including some of the following areas: lesson planning, administrative tasks, communications, and collaboration. Teachers share information about technology uses with their colleagues.

Elementary Schools

The percentage of daily usage by elementary teachers outside of the classroom is very high, especially with the implementation of standard based report cards in FY11 .

Middle School

This goal has been satisfied on the middle school level. At least 85% of teachers currently use technology everyday for student lesson planning and communications, etc. outside of the classroom.

High School

This goal has been satisfied on the high school level as currently 85-90% of faculty at Athol High School use technology outside of class on a daily basis. In particular, teachers use the internet for research and communication. All faculty are assigned a computer (a laptop or desktop depending on their needs) and many also use these regularly for lesson planning, grading, etc. With additional training, we hope to increase usage outside the classroom to near 100% in the next 2 years.

B. Within The Classroom - At least 85% of teachers use technology appropriately with students each week, including some of the following areas: research, multimedia, simulations, data interpretation, communications and collaboration.

Elementary Schools

Technology on the elementary level is currently integrated into classroom and lab usages. 75% of our teachers use technology appropriately with students each week

utilizing the labs for content skill development and multimedia. The district will be administering the TSAT / surveys prior to July 2011 on a district level. At that time, an actual gauge on the percentages of teachers using technology appropriately with students will be able to be

obtained. At that time, the district will implement change as necessary to meet this goal.

Middle School

This goal will be attained by the end of this planning cycle. Currently, 75% of our teachers use technology appropriately with students each week in the area of research, multimedia, and communications. By the end of this cycle, middle school teachers will use more data interpretation activities such as the use of spreadsheets for data organization, and data interpretation with their students. 100% of our teachers already use the MacSchool database on a daily basis, and use eClass for submittal and

calculation of their student grades as well as to design and generate progress reports.

High School

Currently, only about 75-80% of teachers use technology in class for instruction, research, collaboration, etc. This is due in large part to a lack of appropriate updated facilities, that can accommodate adequate numbers of students. However, in the next 2-3 years, we hope to bring additional computer lab and in-class computer facilities online through a gradual tech refresh and acquisition process and increase this percentage of regular inclass use to approximately 95%.

2. At least 85% of students from grades 5 to 8 show proficiency in all the Massachusetts Recommended PreK-12 Instructional Technology Standards for Grades 5 to 8.

Grade five is elementary level with grade six, seven & eight being our middle school grades. Athol-Royalston will strive district-wide for a greater amount of students to reach this proficiency level by the end of this technology cycle by implementing more computer oriented instruction. This goal is currently being addressed on the high school level as well where 75-80% of students are meeting computer proficiency standards. The high school has implemented two new computing courses online this year and will be adding 2 more next year to address needs for increased computer literacy and for building advanced skills.

3. At Least 90% of teachers are working to meet the proficiency level in technology, and by the school year 2011-2012, 80% of teachers will have reached the proficiency level as defined by the Massachusetts Technology Self-Assessment Tool (TSAT).

Elementary

The TSAT will be administered to the teaching staff on the elementary level prior to July 2011. This will allow us to identify target staff areas for training. The district will strive for 100% of teachers to be proficient with 90% being a baseline for proficiency.

Middle School

The middle school took the TSAT in July 2011 as a reevaluation tool. As of June 2004, this goal was satisfied on the middle school level with at least 90% of teachers working to meet the proficiency level in technology.

High School

Approximately 75% of high school faculty meets defined proficiency levels in technology. Over the next 2-3 years we are planning, pending appropriate funding, a series of professional development workshops in computer technology to significantly increase this percentage and to increase this percentage as well as staff comfort levels with a variety of areas in information technology.

4. The district has a CIPA compliant Acceptable Use Policy (AUP) regarding Internet use.

This goal has been satisfied district wide. All schools require that students

and parent/guardians sign Internet Use Policy. A copy of this is maintained on site. All staff is trained annually regarding safe Internet practices, and the district policy is posted on the district website as well the Athol High School and Athol-Royalston Regional Middle School websites. The district has firewalls and content filtering in place to enforce this policy as required. The district will continue to maintain a CIPA compliant technology base making adjustments as needed.

5. Staffing

Elementary

The elementary schools technology needs are currently maintained by a roving technology para-specialist and outside contracted services as needed. This technologist performs regular maintenance on labs and classroom technology as well as software installation and updating, antivirus and any miscellaneous tasks as needed at this level. Contracted services provide networking troubleshooting, hardware initialization and other higher level tasks outside the para-specialist realm of ability.

Middle School

The middle school has a computer coordinator certified in Instructional Technology who also teaches a reduced load. For the last five years, prior to the 05-06 school year, the middle school also staffed a 40-hour per week computer para-specialist to assist the middle school computer coordinator with the duties of running the middle school which opened in September 2000. At that time an initial investment of \$850,000 in technology was made. These two positions maintained this equipment as well as provided school staff and administration with training, professional development, implementation of technology to students in grades 6 through 8. The position of technology para-specialist had been reduced to halftime for fiscal 06 with a goal of returning it to full time as soon as possible.

High School

The high school has a full time para-specialist on staff. Network and database administration and PC maintenance are handled by this staff as well as some degree of training and professional development in instructional technology.

10. CIPA Compliance

The Athol-Royalston Regional School District employs filtering software to block access to inappropriate content on all computers with internet access. Student website access is monitored by staff. In addition, students and parents are required to read and sign a user contract agreeing to follow the computer and Internet Use Policy at all times.

11. Internet Use Policy

Internet Use Policy

Date Adopted: August 21, 2002 Policy Number: 6300.0

INSTRUCTION

Curriculum

Internet Use Policy

Overview

The Internet is an electronic communications network which provides vast, diverse and unique resources. Our goal in providing this service to teacher, staff and ultimately students, is to promote educational excellence in the Athol-Royalston Regional School District by facilitating resource sharing, innovation and communication.

With access to computers and people all over the world also comes the availability of material that may not be considered to be of educational value in the context of the school setting. There may be some material or individual communications which are not suitable for school-aged children. The Athol-Royalston Regional School District views information gathered from the Internet in the same manner as information gathered from other reference materials identified by the schools. Specifically, the district supports resources that will enhance the learning environment with directed guidance from the faculty and staff. Exploration and utilization of resources is encouraged. However, it is impossible to control all materials on a global network and an industrious user may discover inappropriate information.

In the schools, student access to, and use of, the Internet will be available through a school designated account and will be carried out at teacher direction and monitored as any other classroom activity. Training will be provided. Every school complies with the CIPA (Children's Internet Protection Act. The school district, however, cannot prevent the possibility that some users may access material that is not consistent with the educational mission, goals and policies of the school district.

Guidelines

Internet access is coordinated through a complex association of government agencies and regional networks. The operation of the Internet relies heavily on the proper conduct of the users, who must adhere to strict guidelines. The district staff has the right and obligation to monitor student Internet activities. Internet access is a privilege, not a right. It shall be the policy of the Athol-Royalston Regional School District that every student who uses the District's internet connection shall have on file, at each school that the student attends, the official "Athol-Royalston Regional School District Contract Regarding the Use of the Internet" which is signed and dated by both the student and a

parent/guardian. The Principal of each school shall be responsible for adherence to this policy and place such contracts in the student's temporary file. If a district user violates any of the acceptable use provisions outlined in this document, his/her account will be terminated and future access will be denied. Some violations may also constitute a criminal offense and may result in legal action. Any use violating these provisions, applicable state and federal laws, or posted classroom and district policies, is subject to loss of access privileges and any other district disciplinary options.

1) Acceptable Use

- Student use must be in support of education and research consistent with curriculum
- Student use must be consistent with the rules appropriate to any network being used/accessed.

2) Unacceptable Use

- Unauthorized use of copyrighted material is prohibited.
- Threatening or obscene material is prohibited.
- Distribution of material protected by trade secret is prohibited.
- Use for commercial activities is not acceptable.
- Product advertisement or political lobbying is prohibited.
- Plagiarism is prohibited.

3) Netiquette

- Do not watch when others type in their passwords.
- Be polite.
- Do not use vulgar or obscene language.
- Do not reveal your own home address, telephone #, or telephone # of others.
- Use caution when revealing your school address or e-mail number (or those of others).
- Electronic mail is not guaranteed to be private.
- Do not intentionally disrupt the network or other users.
- Abide by generally accepted rules of network etiquette.

4) Security

- If you identify a security problem, notify a teacher/administrator immediately.
- Do not show or identify a security problem to others.
- Do not reveal your account password or allow another person to use your account.
- Do not use another individual's account.
- Attempts to log on as another user will result in cancellation of your privileges.
- Any user identified as a security risk or having a history of problems with other computer systems may be denied access.
- The student user must notify their teacher/administrator of any change in

account information.

- The student user may be occasionally required to update registration, password and account information in order to continue Internet access.
- The student user must use school accounts on school grounds.

5) Vandalism/Harassment

- Vandalism is defined as any malicious attempt to harm or destroy data or another user, the Internet or other networks. This includes, but is not limited to, creating and/or uploading computer viruses. Harassment is defined as the persistent annoyance of another user or the interference in another user's work. This includes, but is not limited to, the sending of unwanted e-mail.
- Vandalism and/or harassment will result in the cancellation of privileges.

6) Penalties

- Any user violating these provisions, applicable state and federal laws or posted classroom and district rules is subject to loss of privileges and any other district disciplinary options, including criminal prosecution.
- School and district administrators will make the determination as to what constitutes unacceptable use and their decision will be final.

The Athol-Royalston Regional School District makes no warranties of any kind, whether expressed or implied, for the service it is providing. The Athol-Royalston Regional School District will not be responsible for any damages a user may suffer, including loss of data. The District will not be responsible for the accuracy or quality of information obtained through this Internet connection.

All terms and conditions as stated in this document are applicable to all users of the Internet. These provisions reflect an agreement of the parties and shall be governed and interpreted in accordance with the laws of the state of Massachusetts and the United States of America.

12. Internet Use Contract

ATHOL-ROYALSTON REGIONAL SCHOOL DISTRICT CONTRACT REGARDING THE USE OF THE INTERNET

I, _____, agree to abide by all rules which are listed in the Athol-Royalston Regional School District Internet Policy.

I realize that the primary purpose of the Athol-Royalston Regional School District's Internet connection is educational.

I realize that the use of the Internet is a privilege, not a right. I accept that inappropriate behavior may lead to penalties including revoking of my account, disciplinary action, and/or legal action.

I agree not to participate in the transfer of inappropriate or illegal materials through the Athol-Royalston Regional School District's Internet connection. I realize that in some cases, the transfer of such material may result in legal action against me.

I agree not to allow other individuals to use my account for Internet activities nor will I give anyone my password.

I release the Athol-Royalston Regional School District and all other organizations related to the Athol-Royalston Regional School District's Internet connection from any liability or damages that may result from the use of the Internet connection. In addition, I will accept full responsibility and liability for the results of my personal actions with regard to the use of the Internet. I release the school and related organizations from any liability relating to consequences resulting from my use of the Internet.

THIS SECTION IS TO BE COMPLETED BY THE PARENT/GUARDIAN IF THE ABOVE-NAMED STUDENT IS UNDER 18 YEARS OF AGE

I, _____, the parent/guardian of the above-named student, hereby agree to accept all financial and legal liabilities which may result from my son/daughter's use of the Athol-Royalston Regional School District's Internet connection.

I, _____, the parent/guardian of the above-named student, **DO NOT AGREE** to accept all financial and legal liabilities which may result from my son/daughter's use of the Athol-Royalston Regional School District's Internet connection, and thereby understand that my child **WILL NOT BE PERMITTED** to work on the school's internet.

Signed: _____ Date: _____
(Parent/Guardian Signature)

13. Technology Professional Development

1. By the end of the school year 2011-2012, 100% of district staff will have participated in 45 hours of high-quality technology professional development covering technology skills and the integration of technology into instruction.

Elementary Schools

The district will strive to provide the required hours of high-technology professional development required on the elementary levels. There are currently four different elementary schools in the Athol-Royalston Regional School District. A concentrated effort will be made by the administration to provide staff training by individual school and also on a district integrated level to allow teachers to share ideas and concepts they are currently using as well as allow for brainstorming of new techniques and instructional uses. This process will be reevaluated after July of 2011 when the TSAT/survey results are compiled for this staff level to ensure the level of need is being addressed adequately.

Middle School

The middle school will strive to provide 10 hours of high-quality technology professional development for a total of 50 hours over a 5 year period. This professional development may also occur during middle school common planning times.

High School

Since 2004-2005, faculty at AHS have completed 6 hours of training in the use of Windows XP and the new computers they were assigned. In addition, faculty has completed 2 hours of training in the new educational database software implemented at the high school. Significant additional training opportunities have occurred over the past year to allow faculty to fully leverage the existing technology infrastructure and better utilize the features of available computing systems, both in and out of class.

2. Technology professional development is sustained and ongoing and includes coaching, modeling best practices, district-based mentoring, and study groups. The professional development includes concepts of universal design and scientific based, researched models.

Elementary Schools

The elementary schools technological professional development will be addressed by the building principals as well as the Director of Operations for the district. They will work together to institute a professional development strategy for elementary staff including but not limited to all of the above listed goals. Newly purchased software professional development will be addressed for staff with the goal of effective classroom integration.

Middle School

The middle school will continue to provide technology professional

development to match the technology investment that has already been made at the new middle school.

High School

Both the Director of Technology and several champion users at the high school provide ongoing mentoring and hands-on training for the use of existing and emerging computer systems. Additional power users have been trained and cultivated allowing the Director of Technology to focus on IT planning and training while daily instructional needs can be addressed by identified mentors.

3. Professional development planning includes an assessment of district and teachers needs. The assessment is based upon competencies listed in the Massachusetts Technology Self-Assessment Tool. The Department, the Educational Technology Advisory Council and stakeholders will review the levels of competencies in the Massachusetts Technology Self-Assessment Tool on an annual basis.

On all district levels, the needs of teachers and staff will continue to be assessed, monitored in technological competency areas through use of the TSAT assessment tool and surveys annually.

14. Budget and Resources

The E-rate - or, more precisely, the Schools and Libraries Universal Service Support Mechanism - provides discounts to assist most schools and libraries in the United States to obtain affordable telecommunications and Internet access. The Athol-Royalston Regional School District currently utilizes E-Rate funding for a percentage of internet access and improvement and telephone services throughout the district as well as technology purchases when possible. The district will continue to utilize this funding mechanism whenever possible to increase the connectivity, telephone services and hardware replacement cycle district wide.

SAT – arm waving here re: lifecycle funding and human resources.

15. Ongoing Evaluation

Mention TSAT, discussion of tech leadership with staff, tech committee, and prof dev comm

AMENDMENT

The attached 2012-2015 Technology Plan reflects work completed to date, to be completed by 8/2011. We are awaiting further assessments to establish a firm plan to move forward with technology development, implementation and professional development. Included is an online venue for teachers to use to “flip the classroom” teaching methodology, as well as a portal for online in district professional development.

In addition below are items the planning team need to reflect on and assess in order to move our district forward technologically.

Identified Funding Needs

Dual T1, phone, vm, router at AHS, T1 at ARMS, rework of network infrastructure to create district-wide domain/enterprise and facilitate comm.; parent communication tools; fiber runs at ahs, cell/data connections for IT staff, upgrades to switches/networking equipment, wireless infrastructure

Arm wave about costs – evaluating with vendors, will update plan accordingly as we determine most cost-effective course of action. Will include proposed infrastructure changes when drafted- at this point only gathering requirements