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To: David Fleishman, Superintendent of Schools

       Newton Public Schools School Committee

From: Leo Brehm, Director of Information Technology and Library Media

Date: January 2, 2014

Re: Update on Instructional Technology and Libraries

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District-Wide Professional Development

We have identified three distinct ways of providing professional development to staff in the Newton Schools:

Just-in-time PD: This form of professional development occurs on a daily basis as our staff responds to requests for technology assistance "in the moment" to enhance or support instruction. The coaching model has forged collaboration between the InstructionalTechnology Specialist (ITS), Library and Classroom Teachers. For example: at the middle schools, teachers come visit the lab throughout the day to get advice, collaborate, and problem-solve with the ITS around technology. This resource provides meaningful support as teachers continue to integrate technology into classroom units of study.

Á la Carte: This form of PD is delivered as a one-to-two hour scheduled session with a planned agenda to address technology training needs for a specific curriculum goal. As a school-based follow up to a professional development workshop, the Instructional Technology Specialist, can then co-teach, model, and support the classroom teachers as they apply newly gained skills in the classroom with students.

Scheduled Coursework: Our coursework goals are to integrate technology to improve instruction, collaboration, and productivity. The following is a sample of offerings that have taken place this year.

- **Tech Boot Camp:** Training for new teachers in August on NPS technology programs and resources.

- **High School/Middle School:** Ongoing after-school trainings on the use of iPads,Voicethread, Glogster, Google Docs and EasyBib

- **Elementary:** Blogging in the 5th grade classroom; SmartBoards:10 Coolest Things for Teachers to Know; Research and Technology in the 3rd Grade Social Studies curriculum iPads in the primary grades (site-based); Getting to the Common Core with technology integration.

Department Professional Development

For the first time ever, the department collaborated at a day-long department retreat in December that was focused on defining and developing our teaming skills to help us be effective team members. The morning activities we engaged in were similar to the work done by district leadership teams based on readings from Amy Edmondson's book, *Teaming*. The day culminated in establishing common vocabulary to use within our daily practice and increased understanding when planning and collaborating with each other.

TECHNOLOGY IN USE IN THE CLASSROOM

An important goal of the Instructional Technology team is to foster a consistent learning experience for all learners across the district. Here are current examples:

> **Kindergarten:** *iPads and Math - Using Educreations to create number stories*
> **First Grade**: *History and Social Sciences - Collaborative research on People Who Make a Difference*
> **Second Grade:** *iPad use to record scientific observations and explanations*
> **Fifth Grade:** *Storytelling through comic strip creation using technology*
> **Middle School Project:** *Investigating the 1960's: Looking Back at the Time of The Outsiders by S.E. Hinton*

TEACHING RESEARCH SKILLS IN A TECHNOLOGICAL AGE

Technology has dramatically changed the nature of conducting research. Teaching our students how to conduct research, using technology, has become an important part of the work of our library staff. Below are a few strategies we use to promote the building of good research skills in today's information age.

> **Digital Citizenship (Secondary) :** *Citing Sources using an online citation-maker, EasyBib*
>
> **Information Problem-Solving (Elementary):** *Applying the steps of the Super3 as students research using print, primary databases and electronic resources to locate, and evaluate, and synthesize information.*

PILOTING FOR THE FUTURE

Change in technology is constant. Ongoing research, development, and evaluation are important. The goal of research and development is to find the best solutions for our schools. In order to effectively evaluate and implement new technologies and strategies, we have initiated a research and development process. This R&D process allows us to be innovative; to take an idea or developing tool, merge it with curriculum, pilot it in the classroom, and review the results. Here are three concepts we are currently evaluating;

One to One Access: We have been piloting one-to-one access with a grade six team at Bigelow Middle School over the past two years.

Engineering and Design: We are exploring the use of the design process to promote creativity, critical thinking, and problem-solving at the elementary level. It will involve the use of design software developed for the elementary level and the use of 3D scanners and printers.

Use of iPads: We are assessing the effectiveness of the use of iPads in classrooms and school libraries district-wide.

I look forward to discussing the initiatives taking place in the area of instructional technology on Monday night.