

F.A.Q.'s on 21st Century skill development
and
1-1 computing in the classroom environment

Imagine a classroom where students are working together on a project that is of interest to them. They move from group to group talking with “experts” on using a spreadsheet to create graphs or using a particular program to create a presentation. The teacher is walking around the room facilitating, responding to questions, and guiding the student’s work, but the students are collaborating with each other on the content. A question comes up about a topic that one of the groups is working on, the teacher asks someone to check it out. A student is already online using *Google Earth* to respond to the question. Another student has logged into a search engine to seek further background information. In one class, students are talking with students from another country in real-time as they discuss solutions to a real or fictional issue they are working to resolve. The students have access to the tools they need to be active and engaged in their learning in a manner that fits the student of the 21st Century....They are in the connected classroom.

1. Why do we need this technology in the classroom?

- a. The world has changed around us. Students today are commonly referred to as “digital natives.” They have not known a world prior to microwaves, remote controlled televisions, cell phones that can fit in your pocket, social networking, texting, multiplayer online video gaming systems, a computer in almost every home, instant access to more than anyone would ever need to know, and so much more. Compare your life at the age of 10 or 11 with your child’s experiences. It is likely to be radically different.

2. When will we get to learn more about the 1-1 Computing in the Classroom pilot?

- a. Prior to school starting, all parents are requested to attend a mandatory meeting on the initiative. There you will learn more about the specifics of the pilot, expectations of you and your child, get to actually use the netbook, sign up for your Edline account, and get any questions you have answered. Information about this meeting will be sent out with your child’s placement in August.

3. What will students be doing with a computer all day long?

- a. Teachers have been using technology in the classrooms for the last 10 years. As more and more activities, learning opportunities, and resources are available online, teachers are becoming more limited in what they can do because they are waiting to sign up to go to a computer lab or get a limited number of mobile carts into their classroom. Having their “own” computer in the classroom will allow students daily access for working on long-term projects, enhancing a variety of skills such as keyboarding, math and writing skills, working collaboratively with students in their classroom or other classrooms, researching and analyzing information and creating presentations that demonstrate their learning, and many other things that

are not possible with limited access to the technology. This is NOT a new idea. This is expanding on what the district has been working on for the past six years as we work to move technology into the hands of the students in order to actively engage students in learning. Technology is merely the tool that can connect students to the world beyond the four walls of the classroom and expand their ability to research, analyze and creatively present information in authentic and meaningful ways.

4. What about face-to-face communication? Kids don't know how to interact with each other anymore.

- a. Students are communicating more today than during any time in history. Whether we like it or not, students are on cell phones or an ipod touch, texting, emailing, and social networking on a regular basis. While technology has opened up communication, it has created opportunities for faceless or impersonal communication. Parents and teachers need to work with children to teach them the appropriate ways to communicate; to recognize and remember that the email address has a human being behind it with feelings. Technology is a tool that enhances collaborative efforts through a common goal and process as presentations or projects are developed. What better way to help children learn the best ways to communicate than through actual, real-life opportunities where they can learn and take appropriate educational risks as they develop new communication skills that can be utilized for life and career.

5. I heard my child would have an email address. I am concerned that I won't know with whom my child is communicating or if the technology will be misused.

- a. Children will be issued an email account that is only used to create student accounts for various Web 2.0 tools that students will be using in class. You will receive a list of these tools each year, before your child starts using the accounts. Once the accounts have been created, email will be shut down. Students will NOT have an active email account issued through school. Many parents have created email accounts that they can monitor through their home Internet service provider. We would encourage parents and students to put those email addresses into Edline, as this will be the way that teachers can communicate with you and your child throughout the year.

6. Will the students in the netbook pilot classrooms learn different things than the other 5th grade students?

- a. For the 2010-11 school year, the benchmarks to be met by the end of fifth grade will remain the same. Students in the pilot classrooms will be studying similar concepts as their peers in non-pilot classrooms, but may use different content sources and have different presentation expectations. All of our students will be well prepared for sixth grade. We are studying the impact on:
 - i. Student engagement

- ii. Student writing quality and quantity
- iii. Student self-perceptions on learning, focusing on the Partnership for 21st Century Skills Framework which includes:
 - 1. Core Subjects and 21st Century Themes
 - 2. Learning and Innovation Skills
 - 3. Information, Media and Technology Skills
 - 4. Life and Career Skills

These are broken down in to further subsections that can be viewed at: http://www.p21.org/documents/P21_Framework.pdf

- iv. Connection to the National Education Technology Standards (NETS) which includes:
 - 1. Creativity and Innovation
 - 2. Communication and Collaboration
 - 3. Research and Information Fluency
 - 4. Critical Thinking, Problem Solving, and Decision Making
 - 5. Digital Citizenship
 - 6. Technology Operations and Concepts
 (click here for link to explanation of NETS concepts- [http://www.iste.org/Content/NavigationMenu/NETS/ForStudents/2007Standards/NETS for Students 2007.htm](http://www.iste.org/Content/NavigationMenu/NETS/ForStudents/2007Standards/NETS%20for%20Students%202007.htm))

7. Will my child be taking the netbook home? We already have a computer at home.

- a. Students will be assigned a computer for the year. It will be theirs to use during all their classes at school. We recognize that many families already have computers at home. Students will be able to take the netbooks home after parents sign the required paperwork that will be handed out at the parent orientation meeting in August. We are working with online resources that allow students to work on a home computer and access the same resources or documents that they would from their netbook; therefore, it will not be imperative that students transport the netbooks back and forth. There will be a cart in each classroom where the students can lock their computer up and charge it each night. Students taking the netbooks home will be held to the Acceptable Use Policy (AUP) that you and your child will sign at the beginning of the school year.

8. Is this type of learning in place at any other schools? Has it been proven to be effective for the students?

- a. Students as close as Lake Bluff and as far as Maine have been in 1-1 laptop environments. The goal of District 67's 1-1 initiative does not focus on the technology, but on the fabric of the classroom; the pedagogy and methodologies used in learning. There is contradictory research as to the success of 1-1 initiatives. You will find research indicating that 1-1 laptops changing education have failed, but you will also find that the laptops were

not the cause of the failure. It was not changing the core fabric of pedagogy and therefore the role of the laptop in the classroom took on little more significance than a replacement for paper and pencil. In schools where the pedagogy, the approach to learning, and the curriculum has been revamped, 1-1 laptops, or similar technology, has created effective learning environments that capitalize on students' natural curiosity and desire to grow.

9. Isn't this new curriculum just a fad?

- a. Technology is not a fad. While the various types of technology hardware and software that we use may change rather rapidly (Think of cell phone changes over the last three years; who would have thought an iPhone would set the new standard?), the 21st Century skills are not bound by the same changes in technological advancements. Creativity and critical thinking are skills that supersede the tools being used. We are just working to shift the focus on the 21st century skills mentioned above. The success of this learning environment is predicated on making substantive changes to the structure and fabric of the classroom experience for students. If we don't change, students will find other ways to learn what they want to learn.

10. What training will the teachers have to ensure they will be up and running for the new school year?

- a. Teachers have been working with our tech coaches this past school-year and have been preparing for this initiative for over a year. Our teachers attend Illinois Computing Educator Conferences, some have just completed their masters in instructional technology and others are just beginning a program. Teachers are working over the summer to revamp curriculum and rubrics. As this is the first year of this initiative, we expect learning opportunities. That is one of the benefits of piloting. The teachers are not only enthusiastic about this initiative, but have also been piloting different aspects of this program over the course of the last year that will enhance the learning experience for students in the fall.

11. What if my child does not do well in this class? Can I move him or her back to a traditional class?

- a. We are not concerned that the children will not enjoy this class, as the whole idea is to make learning absolutely irresistible. We believe we will have the opposite problem—parents requesting their children be placed in this class. That being said, if your child is struggling we will do all in our power to address the issue and do what's best for the child. Stay in contact with the teacher if concerns arise.

12. What will happen to the students in sixth grade?

- a. We are confident that the pilot will be successful. As time progresses the tools may change, but again, the fundamental changes that are occurring are within the pedagogy and methodologies, the computers are tools—the tools

that today's students use outside of school on a regular basis. The 6th, 7th, and 8th grade social studies teachers are working this summer on beginning modifications to their curriculum to focus on the NETS standards and the Partnership for 21st Century Skills Standards. They will be using carts of netbooks in their classrooms to begin preparing for implementation of phase two during the 2011-12 school year. During this year we will expand the pilot to include 6th grade students.

13. Is it wise to have children responsible for expensive computers? Will I have to replace a computer that is lost or damaged?

- a. Currently students are using MacBook computers that cost 3X the amount of the Netbook. A common theme our research has shown in our study of Eastern Township Board School District in Canada (over 20K laptops), the State of Maine's laptop program, and neighboring districts' programs has been that when a child has "ownership" of a computer assigned to them, they take very good care of it. Think about things at home. When they have the responsibility to care for and personalize something they take care of it better. Certainly accidents happen and the computers will be insured for accidents and computer malfunctions. Obvious neglect due to spilling something on the computer or intentional destruction will result in the parent's reimbursing the district. We have talked with educators from all over the country and while the concern before the initiatives has always been about damage to the computer, that concern fades away very quickly as soon as the teachers and parents see how invested the students are in using their laptops and how responsible they become in caring for them.

14. Will the students be using the regular textbooks in addition to the computers?

- a. Currently, there are some textbooks that are not available online. Some districts have gone completely away from using textbooks and only use online resources. While our long-term vision includes reducing our reliance on textbooks, we will be doing that only as we cycle through our curriculum revision process. This will ensure that we are making thoughtful decisions about what works best, where a textbook might be more beneficial, and where it is less helpful. The current reality is that students are using textbooks in high school and in college, we do need to prepare students not only for the imagined future, but also for the current realities they will experience.

15. Will my child use the computer in all of his/her classes?

- a. In a blog by Elliot Soloway, well-known in regards to his knowledge of appropriate use of technology in educational settings, he states the worse thing you want to hear a student say is, "Do I need my computer for class today?" Herein lies the need for the revamping of the curriculum in which the focus is the 21st Century Skills and the vehicle is the content. This is not a radical idea, nor is it THE solution to education, however, the changes to the curriculum, currently in Math, Science, Social Studies and Language Arts

will necessitate that students will use their computers daily in those classes. Remember, the focus is not the technology. Students currently are integrating technology, developing 21st Century Skills and more in many classrooms. While Deer Path Middle School has a student to computer ratio of 3.5 to 1, daily access is not available to all students limiting the types of projects or work teachers and students can do. This pilot allows teachers to plan knowing that students will have daily access to the technologies needed for learning and instruction.

16. Who is the curriculum/technology expert in District 67 responsible for overseeing this project?

- a. Kyle Schumacher and Andy Henrikson are overseeing this project, but are working with a team of teachers and support staff in a collaborative manner in order to ensure that the expectations are realistic, the technology works appropriately, and teachers, students and parents involved in the pilot are supported throughout. Laura Montgomery, tech coach at Deer Path Middle School, will be the on-site person that is offering direct support along with Sabiha Rahman, technology teacher for grades 5/6. Both have just completed their Master's in Instructional Technology.

17. Are the fifth-grade teachers supportive of this pilot?

- a. Not only are the fifth grade teachers supportive, they are spending an incredible amount of time researching, studying, rewriting, and planning for the fall. The fifth grade teachers who are not part of this pilot are also very excited. We will be working to further incorporate some of the non-technological aspects of the pilot (creativity and innovation, collaboration and problem solving, higher order thinking, etc.) even further in the classroom. This will further prepare the whole fifth grade for the following school year. If the pilot is deemed successful, we plan to implement a 1-1 initiative across all the fifth grade classrooms.