Technology in the Classroom
The Increased Student Experience
A broader definition of technology is used to mean a tool or instrument which helps us to organize and accomplish specific tasks and goals.
Why Integrate Technology into School?

- For students, a new system of knowledge will enhance collaborative learning; alternative assessment; and individualized learning.
Research Has Shown that Technology Helps:

- Time for teachers to become acquainted with the technology so that they can become comfortable and proficient with continued use.
What Are People Saying?

- "Reformers advocate classroom activities organized around important, multidisciplinary themes, with students working singly and in groups on long-term projects that involve meaningful, challenging content and that draw on and develop such higher-order skills as analysis, interpretation, and design. Technology can play an important role in achieving this vision."

- "...we need to recognize that it is one thing to use technology in isolated classrooms and quite another to make technology a potent force in transforming an entire school or an entire education system."

- "...our case studies suggest that the deciding factor in successful implementations of technology is the creation of a coherent schoolwide approach to using technology in the core curricula for all students."
Building Schools of the Future (Present)

• Schools of the future must be open and flexible.
• Teachers must be supported in their use of new technologies for learning and also in their use of technology for professional development and collaboration.
• Learners must be able to use technology to achieve new levels of learning and to acquire new information age skills and abilities.
Building Schools of the Future (Present)

- New skills required in info-society: abilities to quickly adapt to new situations and new technologies and to be able to process vast amounts of information.
- Administrators and managers need professional development as much as their staff.
- Create a vision and a reality in which the school is creating value for the community and the technology is enabling the technology to be created.
Assessing Implementation

- Student demonstrations
- Portfolio assessment
- Student products
- Digital portfolios
Promotion plays an important role, but technology alone will not result in the kind and degree of change necessary.

Keep in mind that it helps to:

• Access new sources of information.
Learning in the 21st Century

• A greater dependence on new communication and computing technologies that support new levels of student creativity and research.

• Involvement of parents to play a major role in the education of their children and to work actively with teachers to connect formal and informal education.
Technology Enhances Student Achievement

- Computer assisted instruction
- Multi-media software - teach to a variety of learning styles
- Videodiscs - strengthen basic skills
- Video and audio technologies - bring material to life
Technology Enhances Student Achievement

- Interactive educational technologies, including:
  - Computer-generated simulations
  - Videodiscs
  - Internet
  - CD-ROM
Student Motivation

- They like it better
- Increased family involvement
- Improved teachers’ skills
- Improved School Administration and Management
Success

- Rising scores on state tests
- Improved student attendance
- Increased student comprehension
- Motivation
- Attitude
- Strong study
- Parent and teacher support
- Improved student retention
- Improved placement in jobs.
Multiple Intelligences

- Seven or more "multiple intelligences" that are of equal importance in human beings and develop at different times and in different ways in different individuals.
Linguistic Intelligence:
The ability to think, communicate, and create through words both in speech and in writing.

• Computer software which allows young children to write and illustrate their own stories before their fine motor skills are developed enough to allow them to do so by hand.
• Multimedia products that graphically illustrate physics concepts.

**Logical Intelligence:**

Memorize and perform mathematical operations, ability to think mathematically, logically, and analytically and to apply that understanding to problem solving.
"Paint" programs that allow students who are unskilled with paper and brush create art on computer screens.

Visual/Spatial Intelligence:
The ability to understand the world through what we see and imagine and to express ideas through the graphic arts.
Educational games which challenge fine motor coordination while developing logical thinking skills and mastery over abstractions.

**Kinesthetic Intelligence:**

The ability to learn through physical coordination and dexterity and the ability to express oneself through physical activities.
• Students can hum into a synthesizer and make it sound like any instrument they want.

**Musical Intelligence:**
The ability to understand, appreciate, perform, and create music by voice or instruments or dance.
Clusters of students working together on computers learn more than individual students working alone.

Interpersonal Intelligence:
The ability to work cooperatively with other people and to apply a variety of skills to communicate with and understand others.
• Multimedia gives teachers the tools to turn the classroom into centers of student-directed inquiry.

Intrapersonal Intelligence:
The ability to understand, bring to consciousness, and express one’s own inner world of thoughts and emotions.
Connecting Students to a Changing World

"Fortunately, the same rapid technological changes that have made these new workplace competencies so important and greater knowledge of mathematics and science so critical also provide new and effective tools to help raise the knowledge and skills of teachers and the achievement of students."
Variables that “Define” Learning

• The goals and metaphors that drive learning and instructions (vision of learning).
• The tasks that ultimately define the nature and level of achievement as well as the curriculum
Technology Effectiveness
How Do You Do It?

• Spend your own time researching methods and creating interactive lesson plans.
• Interactive games, drag and drop charts, SMART Notebook, Student centered lessons, Students create review games
• Use resources available in your school (including peers)
• YouTube, Google. Look up what you are thinking about, odds are someone has already made it, then you just MAKE IT YOUR OWN!
Ready or Not . . .
The World is Different

- Work is different . . .
- Tools are different . . .
- Communication is different . . .
- Information is different . . .
- Kids’ environment is different . . .

And Learning Is Is Different!
So, What Now?

• How are you going to implement more technology in your everyday classroom?
• How can I help you implement more technology in your classroom?
• What are good resources to use to make the transition to more technology easier?
• What questions do you have?
**Modify a Lesson**

- With a partner, please jot down a lesson you commonly perform in your classroom.
- Now, through collaboration with your partner, find where technology can be added to enhance the lesson.
- Jot down a new lesson plan with the technology is included and write down how, if at all, the lesson has improved.
- Take 5-10 minutes to complete this and we will share out at the end.