

# Designing Technology Integration Projects for Students (TIPS) by Integrating the ISTE NETS Standards into Teaching and Learning

## 2006 Georgia Educational Technology Conference



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**Presentation Notes:**  
<http://essdack.org/gaetc2006>

GaETC 2006




## Digital Students

Today's students are different than students were 15 years ago. They learn differently and as a result feel disconnected from schools that were designed for another time.




Photo Source: <http://images.apple.com/education/digitalkids/>



## Digital Students

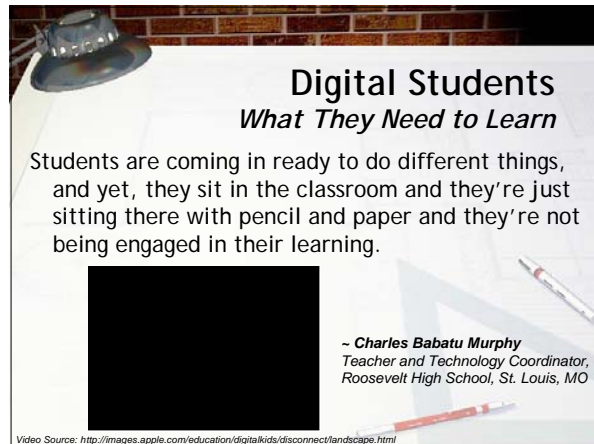
### *Who They Are*

- Digital Students are Hypercommunicators
- Digital Students are Multitaskers
- Digital Students are Goal Oriented



*~ Carl Owens*  
Professor and Director of Technology,  
College of Education,  
Tennessee Technological University


Video Source: <http://images.apple.com/education/digitalkids/>



## Digital Students

### *What They Need to Learn*

Students are coming in ready to do different things, and yet, they sit in the classroom and they're just sitting there with pencil and paper and they're not being engaged in their learning.

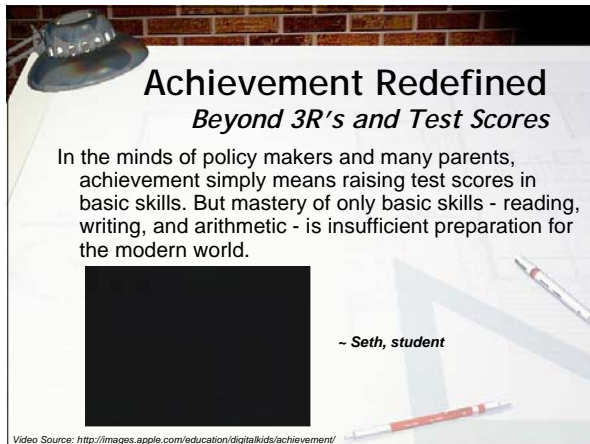


*~ Charles Babatu Murphy*  
Teacher and Technology Coordinator,  
Roosevelt High School, St. Louis, MO

Video Source: <http://images.apple.com/education/digitalkids/disconnect/landscape.html>

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### Achievement Redefined

#### *Beyond 3R's and Test Scores*

In the minds of policy makers and many parents, achievement simply means raising test scores in basic skills. But mastery of only basic skills - reading, writing, and arithmetic - is insufficient preparation for the modern world.

~ Seth, student

Video Source: <http://images.apple.com/education/digitalkids/achievement/>



### Achievement Redefined

#### *21st Century Literacy*

Searching the web, finding copious results, designing databases, concept maps, and spreadsheets, to sift and sort that information into categories, recognizing frequency, trends, and patterns, and then creatively communicating findings to others, mimics the mental work of experts.

~ Ryan, student

Video Source: <http://images.apple.com/education/digitalkids/achievement/century.html>



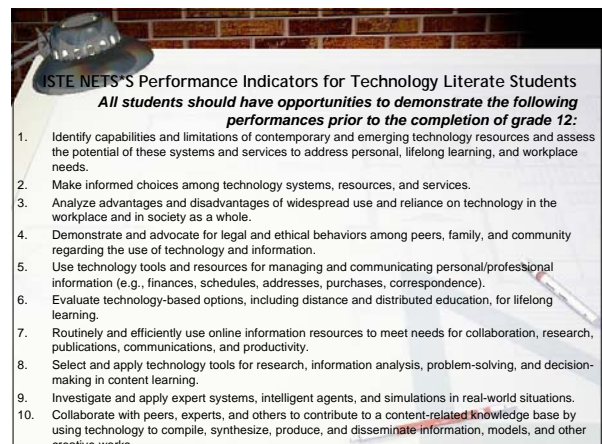
### Achievement Redefined

#### *21st Century Literacy*

ISTE: International Society for Technology in Education

NETS: National Education Technology Standards

- NETS\*Students  
<http://cnets.iste.org/students>
- NETS\*Teachers  
<http://cnets.iste.org/teachers>
- NETS\*Administrators  
<http://cnets.iste.org/administrators>



### ISTE NETS'S Performance Indicators for Technology Literate Students

**All students should have opportunities to demonstrate the following performances prior to the completion of grade 12:**

1. Identify capabilities and limitations of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs.
2. Make informed choices among technology systems, resources, and services.
3. Analyze advantages and disadvantages of widespread use and reliance on technology in the workplace and in society as a whole.
4. Demonstrate and advocate for legal and ethical behaviors among peers, family, and community regarding the use of technology and information.
5. Use technology tools and resources for managing and communicating personal/professional information (e.g., finances, schedules, addresses, purchases, correspondence).
6. Evaluate technology-based options, including distance and distributed education, for lifelong learning.
7. Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity.
8. Select and apply technology tools for research, information analysis, problem-solving, and decision-making in content learning.
9. Investigate and apply expert systems, intelligent agents, and simulations in real-world situations.
10. Collaborate with peers, experts, and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce, and disseminate information, models, and other creative works.

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**Digital Students**  
*Creating With Digital Tools*

- Hypermedia
- Collaborative
- Global
- Creative
- Relevant
- Useful
- Authentic
- Multi-task

~ **Karen Thompson**  
Instructional Technology Facilitator,  
Springfield District 186, Springfield, IL

Video Source: <http://images.apple.com/education/digitalkids/dconnect/>

**Digital Students**  
*Digital Tools for Learning*

- Blogs
- Podcasting
- Robotics
- Video Production
- Video Conferencing
- Animation
- Desktop Publishing
- Concept Maps
- Simulations
- Data Acquisition
- Spreadsheets
- Databases
- Webpage Design
- Graphic Design

*Tell me I forget...      Show me I remember...      Involve me I understand...*

**TIPS: Technology Integrated Projects**  
*TRACER Model*

- **T**echnology
- **R**esearch
- **A**nalyze
- **C**ommunicate
- **E**valuate
- **R**eflect

Source: [http://education.wichita.edu/m3tips/tracer\\_model.htm](http://education.wichita.edu/m3tips/tracer_model.htm)

**NETS•S Curriculum Series—Multidisciplinary Units for Prekindergarten Through Grade 2**

<http://edtech4teachers.com/iste/>

- Complete curriculum with thematically organized literature, Web, video, and software resources
- Multiple assessment rubrics for every unit
- Multidisciplinary and constructivist approaches to teaching and learning
- NETS and content standards for every unit

[http://www.iste.org/eseries/source/0mfrs/isteProductDetail.cfm?product\\_code=NETSK2](http://www.iste.org/eseries/source/0mfrs/isteProductDetail.cfm?product_code=NETSK2)

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**Linking Technology and Curriculum:  
Integrating the ISTE NETS Standards  
into Teaching and Learning**



This book is designed for educators interested in integrating the National Educational Technology Standards for Students established by the International Society for Technology in Education (ISTE NETS'S) into their classroom activities.

The text provides ideas for supporting teacher productivity and regular classroom instruction with technology as well as creative ways to use technology in classrooms with students.




<http://tinyurl.com/ymw89x> **New Edition In Press!!**

**TIPS: Technology Integration Projects  
Animation**



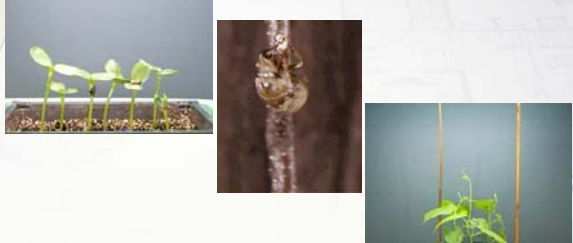
Clay Animation Made Easy  
<http://education.wichita.edu/claymation>

**TIPS: Technology Integration Projects  
Robotics**



Shocker Mindstorms  
<http://education.wichita.edu/mindstorms>

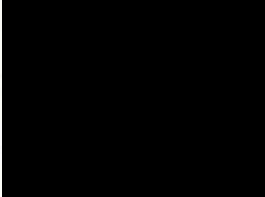
**TIPS: Technology Integration Projects  
Time-Lapse Photography**



Time Lapse Photography in Education  
<http://members.ozemail.com.au/~cumulus/lapse2.htm>

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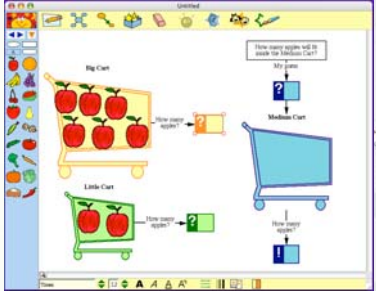
TIPS: Technology Integration Projects  
*Visual Poetry*



“When  
I don't  
feel  
like feeling”

Visual Poetry  
<http://members.ozemail.com.au/~cumulus/lapse2.htm>

*Kidspiration/Inspiration*  
*Audio Feedback*



The screenshot shows a software interface with a shopping cart simulation. It includes a 'Big Cart' with red apples, a 'Little Cart' with green apples, and a 'Market Cart'. There are numbered boxes (1, 2) and arrows indicating a process flow. A text box asks 'How many apples will fit inside the Market Cart?' with '30' written below it. The interface has a standard Windows-style toolbar at the top.


*Roamer Robot*  
*Early Childhood Technology*



The photograph shows a classroom setting where several young children are gathered around a table. They are playing with colorful wooden blocks and a small, white, dome-shaped robot (the Roamer Robot) on the table surface. The room has a red wall and various educational materials.

<http://education.wichita.edu/mindstorms/roamer>

*Global Connections - Saudi Arabia*



The photograph shows a classroom where a group of children and an adult are gathered around a globe. They appear to be engaged in a learning activity related to global connections. The globe is mounted on a stand, and the children are looking at it with interest.

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TIPS: Technology Integration Projects  
*Virtual Tours and Field Trips*



Virtual Fire Station Field Trip  
[http://education.wichita.edu/twitherspo/firestation\\_vft/index.htm](http://education.wichita.edu/twitherspo/firestation_vft/index.htm)  
Mueller Elementary Virtual Tour  
<http://mueller.usd259.org/adamson/virtualtour/virtualtour.html>

TIPS: Technology Integration Projects  
*Video Production - Teaching a Concept*



Video Source: Apple Learning Exchange

Podcasting  
Room 208 - Mr. Sprankle's Class



<http://bobsprankle.blogspot.com/>

iTunes Podcast Library



<http://www.apple.com/itunes/download/>

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Google digitizes historic video clips - free access to newsreels



<http://video.google.com/nara.html>

TIPS: Technology Integration Projects  
*Video Production - Digital Storytelling*

Students at Century High School in Bismarck, North Dakota interview veterans in their community and retell their American experiences. This project empowers students to study, record, and bring history to life, making a solid connection between living history and communication skills. It also offers a way to bridge the generation gap and provides a service to the community.



Video Source: Apple Learning Exchange

TIPS: Technology Integration Projects  
*Data Analysis*



The Journey North  
<http://www.learner.org/jnorth/>  
Real Time Data Sites  
<http://www.k12science.org/realtimedatasites.html>  
Online Real Time Data Collaborative Projects  
<http://www.k12science.org/realtimeproj.html>

Google Earth



<http://earth.google.com/>

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**TIPS: Technology Integration Projects**  
*Concept Maps*

C-Map  
<http://cmap.ihmc.us/>

Inspiration Software  
<http://inspiration.com/>

**TIPS: Technology Integration Projects**  
*Blogs, Podcasts, Wiki's, and RSS Feeds*

- Blogmeister  
<http://classblogmeister.com/>
- Podcast Basics  
<http://podcastingstarterkit.com/>
- Wiki Spaces  
<http://www.wikispaces.org/>
- RSS Feed - Bloglines  
<http://www.bloglines.com/>

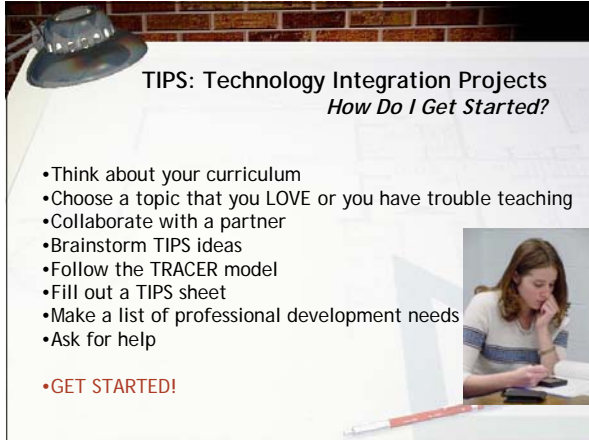
**TIPS: Technology Integration Projects**  
*Collaborative Online Projects*

- Global Schoolhouse  
<http://www.globalschoolnet.org/>
- iEarn  
<http://www.iearn.org/>
- UN Food Force  
<http://www.food-force.com/>
- CIESE Collaborative Projects  
<http://www.k12science.org/collabprojs.html>

**TIPS: Technology Integration Projects**  
*Video Conferencing*

- TWICE: Two Way Interactive Connections in Education  
<http://www.twice.cc/>
- Video Conferencing for Learning  
<http://www.kn.pacbell.com/wired/vidconf/vidconf.html>
- Easy Video Conferencing in Schools  
<http://members.ozemail.com.au/~leemshs/vidconf.htm>

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**TIPS: Technology Integration Projects**  
*How Do I Get Started?*


- Think about your curriculum
- Choose a topic that you LOVE or you have trouble teaching
- Collaborate with a partner
- Brainstorm TIPS ideas
- Follow the TRACER model
- Fill out a TIPS sheet
- Make a list of professional development needs
- Ask for help

• **GET STARTED!**



**TIPS: Technology Integration Projects**  
*Resource Ideas*

- The Big List on Technology Integration  
<http://www.edutopia.org/php/biglist.php?id=137>
- Intel's Innovation Odyssey  
<http://www97.intel.com/odyssey/index.aspx?i=1>
- Edutopia Magazine Subscribe FREE  
<http://www.edutopia.org/php/sub.php>



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