**Airborne to Beyond Creativity**
**~ Integrating Technology Creatively in Teaching & Learning ~**
Summer Institute 2008 Session Descriptions

## The Influence of Characters In Our Lives

Keynote Speaker: Randy Judkins

Whether portraying Dr. Rhombuss, the world's foremost authority on "Mathmagics", or Harley Hotshot with his "1000 cc, four-stroke, 2-cylinder monocycle with power brakes, air-conditioning, overhead seat, and four wheel drive (minus three), or Sunny Day, a physical education fanatic; Randy Judkins understands the impact that his eclectic collection of characters has on his audiences. These characters will be interfacing with the world of technology when they arrive at Castine. This keynote highlights the characters in our lives that seem to be unforgettable, are models for behavior and/or have made a big impact.

## Time to Step It Up a Notch! Stop Clicking on That Theme Menu! Be Original!

Presenter: Debi Lynne Baker

This workshop is designed to provide the tools to enhance technology end products by the use of the Elements & Principles of Design. No longer will presentations or computer products look like every other one. Participants will use web manipulative sources to review or learn The Visual Elements & Principles foundation. Examples of interdisciplinary technology units that use these tools, I.e. Science Fair, Social Studies Unit, Math Unit, Earth Science will be reviewed. Participants will use Mac existing programs to explore these visual tools further (i.e. iPhoto web pages, replacing of themes in Keynote, and iWeb, etc.). Time will also allow for participants to revisit their own existing interdisciplinary technology units and raise them up to this higher plateau by adding these visual tools of the Elements and Principles of Design.

## GarageBand Basics

Presenters: Jenn Holmes, Michael Cushman & Rick Barter
(this will be offered during Session I)

Who Me? A Musician? - Garage Band Basics: This is a hands on session for anyone and everyone who loves music, but doesn't have the time to learn an instrument. Garage Band is a great tool to engage your students and add a music component to any subject. Learn how to compose & arrange music, create your own podcasts, and send it all to iTunes where students can create CD's, put it on their mp3 players, or send it to the web, or to a iMovie/ iPhoto project. There are no limits to the depth and interest music can create in a project. Participants should bring headphones & mP3 player (optional)

**Rock On!**
Presenters: Jenn Holmes and Rick Barter
(this will be offered during session 2)

Garage Band: Now you know the basics, it's time to crank the volume and see what you can really do. In this session we will be using midi keyboards, electric & bass guitars, voice, as well as the apple loops to create original music that you can take back to your classroom. No musical experience is necessary, just be ready for a rockin' good time!

**The Recording Studio in Your iBook**
Presenters: Jenn Holmes and Rick Barter
(This will be offered during session #3)

Although much of what we learn and how we learn is based on listening and speaking (audio in and out), until fairly recently the actual recording and editing of voice, sound and music has been difficult, at best. During this workshop session, we will look at, and listen to examples of digital audio recording in various curriculum areas and then participants will use GarageBand to record, edit and enhance digital audio while looking at (and listening for) the possibilities for classroom uses which might include: podcasting, narrations, original audio poetry/stories, skits, reports and music etc. Previous experience with GarageBand will be useful.

**Universal Design - The intrinsic route to unveiling teacher and student creativity**
Presenter: Cynthia Curry and Doug Bird

Are you in search of a new way of thinking about curriculum, instruction, and assessment? Universal design offers a comprehensive and systemic framework for re-examining the "how, what, who, and even the where and why" of teaching and learning. The elements of this framework are gleaned from the consideration of the diverse needs and preferences of our students - How can what we know about the most unique learners extend our ability to teach all students? An integral component is the use of digital text in the form of accessible instructional materials. Come learn about the power of integrating accessibility, usability, and flexibility across all aspects of teaching and learning with technology.

**Promoting literacy with cartoons, comics and graphic novels**
Presenter: Barbara Greenstone

Many students prefer to give and receive information through images and others prefer text but to be truly literate in the 21st century, students must be fluent in both. Learn how to promote literacy and help students build bridges between images and text using cartoons, comics and graphic novels. Practice using Comic

Life and iPhoto to create comics with your photos or with images gathered from the internet.

**A Digital Camera in the Classroom**
Presenter: Sarah Sutter

Presenting uses for a digital camera for documentation, assessment, student reflection, creation of content, and to increase student engagement. Learn how to use the basic functions on a digital camera to meet particular content needs.

Learn how to use your digital camera to measure acceleration/deceleration, have students explain math concepts through imagery, produce documentation of student work for portfolios, and more. Even the most basic digital camera has settings that will let you do some remarkable projects in your classroom. We'll have hands-on stations to use your camera and try out the various controls and for various purposes, including using a camera with a microscope, stopping and blurring action, various white balance settings, and others.

Students with access to digital cameras can document their own learning for later reflection in Noteshare or on an interactive Voicethread. Photograph final projects, or works in progress to show the students' process. Create web-quality short videos as assessment for foreign language, physical education, physics or debate. If you are Mac based, iPhoto can organize images and share visual resources among class members, as well as do basic image editing. If you are non-Mac, we'll look at free web based image editing applications for you and your students. A digital camera is a great tool for teachers and students alike to create multimedia content that enriches and supports instruction in all curricular areas.

**Imaging World Languages**
Presenters: Marcia Tyrol and Emily Foss

What better match for World Language and Art than the use of digital images and Web 2.0 collaboration tools. This workshop is designed to spark your imagination through visual and sensory exploration as we incorporate traditional journaling, creative writing and autobiography into the digital world of blogs, wikis and digital stories. We will share techniques for stimulating student writing and demonstrate technology tools that allow students to create and share their work in a digital environment.

**An Educator's Perspective on Gaming**
Presenters: Dr. Ruben Puentedura, Doug Snow, Ann Marie Hutton, Jeff Mao

Please join us for an exciting look at games and gaming from an educator's perspective. What draws kids of all ages - and adults - to games? How can games, and the lessons learned from playing them, be used in a classroom setting? How are virtual worlds defining a new learningscape? This session will

offer an opportunity to explore, experience, participate, and reflect on games, gaming, and education.

**Geographic Inquiry with GIS**
Presenters: Margaret Chernosky and Jim Wells

Could your home be vulnerable to destruction by volcanic eruption? It is 1845, as a runaway slave; what route through Maine will you take? Is there a relationship between sunshine and population? Crime and streetlights? Access to greenspaces and obesity? The answers to all of these questions, and more, can be addressed using My WorldGIS, the Geographic Information System application on your MLTI device. Learn how to use this powerful tool in an inquiry-based project for science, social studies, language arts and math classrooms. Bring an idea for an inquiry-based project to participate in this dynamic and creative session, and leave with a memory disc bursting with getting started with GIS.

**Creativity Through Playfulness And Communication**
Presenter: Randy Judkins

Participants will engage in challenging interactive exercises that will highlight this 3-hour session's objectives, which are:

1. Create opportunities for all to laugh and have fun. (This is critical!)
2. Establish a supportive environment for playfulness within the teacher/student relationship.
3. Identify the advantages for using character portrayals and role playing in the 21st century classroom.

The overall goal is to enhance the technology based learning environment and utilize the multitude of learning styles and needs of students.

To begin, specific exercises will be explained and/or modeled for the participants. All hands-on exercises and activities in this session will emphasize participation. Attendees will be encouraged to notice the entire group's playfulness. After each activity we will quickly debrief, occasionally discussing specific character ideas and move on to the next one.
The culminating activity will be participant collaborations that develop curriculum ideas employing playful characters and technology.

**Got creativity? Take the Digital Plunge! We got Cameras and Diving Boards!**
Presenters: Argy Nestor and Carol Waldron

This session will provide opportunities to expand your "bag of tricks" for using digital cameras in your visual art, literacy, and/or math curricula.

In the first half of the session you will learn about four open ended lesson plan

ideas and in the second half you will select one idea to experiment with and tailor to your teaching situation. At the close of the session participants will share their ideas and work they create during the session. No previous experience with digital cameras is necessary. Cameras used in the session are available to arts teachers during the school year on a two-week loan from the Maine Department of Education.

**Invigorating teaching and learning with Interactive whiteboards**
Presenters: Anne Ireland, Ed Latham, Jim Burke, Olga LaPlante, Martha Thibodeau, and Ron Smith - MLTI Regional Coach Mentors.

Learn simple, effective ways to incorporate interactive white boards into your regular daily classroom routine. These great tools allow you to add a creative touch to lessons and an interactive dimension to learning. Collaborative learning software helps you add a creative touch to lesson material, organize your work and teach interactive lessons. We'll show you how to do all that using the software's many easy-to-use features.

**This Ain't Your Momma's History: Using Technology to Bring History to Life, and Your Community into Your Classroom**
Presenters: Steve Bromage, Kristie Littlefield, Laura Richter, Ernie Easter

New technologies and training, resources, and support available through MLTI and the Maine Historical Society are helping re-invent and re-energize social studies education in Maine. Gone are the days of lectures, overheads, rote memorization, and dependence on text books. Enter the era of fingertip access to thousands of primary documents, software and websites that empower students to capture and share their learning, training that teaches students to do research and think like historians, and, perhaps most importantly, extensive opportunities for students to explore and interact with local history and become engaged citizens.

Join experienced educators who have been leaders in this work for an interactive session that includes: an inside look at key tools that can enhance how you teach history, including the Maine Memory Network (www.mainememory.net), Noteshare, and podcasting; incredible examples of student work; strategies for teaching history and meeting the revised Learning Results; and, a workshop designed to help participants plan how to integrate these resources in their own teaching.

**Carbon Fiber Cookies in a Land of Titanium: What Does Carbon Sound Like?**
Presenter: Michael Cushman

Let's go beyond the Periodic Table. Challenge learners using descriptive language, digital imagery, and digital audio to present a chosen element in multi-modal form to other learners. This session will be hands-, eyes-, and ears-on, using Garage Band and

other iLife programs to create a multimedia presentation of one element.

Actual student exemplars will begin this hands-on session where we will ask, "If an element makes a sound, what would it be?"

- Participants will chose an element to research and describe, in a verbal, auditory, and/or visual format.
- Methods of classifying and describing sound will be presented.
- Internet resources will be given.
- Assistance will be provided with hands-on work and completing an exemplar for teachers to use with their own students.
- Digital audio input devices and recording equipment will be provided.
- MLTI-HS laptops will be preferred, but MLTI-MS laptops may be used as well.

**Webquests**
Presenters: Anne Ireland and Martha Thibodeau

Do your students lose valuable time searching the web rather than researching the subject matter? WebQuests focus student attention on using information rather than searching for it. A good WebQuest promotes higher level thinking skills with essential questions that center around authentic tasks.

In this session, participants will understand the key elements of a WebQuest and the ways WebQuests contribute to inquiry-based learning. Participants will deepen their understanding of the process of choosing good WebQuests to support inquiry-based learning in their classrooms and they will leave with a collection of resources on ELA WebQuests.

**Programming to enhance Mathematics and Artistic Creativity**
Presenters: Ed Latham and Anne Ireland

In this session you will learn how to use Netlogo with students to help illustrate basic mathematic patterns. When these patterns are mixed and matched with other patterns, incredibly creative designs can be created. Netlogo is a free programming tool available on all platforms. Very quick and easy classroom activities can help illustrate differences between functions that are often very abstract for students. If you have ever had fun with Spirograph toys, you will find these simulation tools great fun!

**Service Learning in the Middle School Classroom**
Presenter: Glen Widmer

Learn how a sixth/seventh grade team used Service Learning as an approach to teaching about climate change, energy conservation, and carbon footprints. Workshop participants will learn what service learning is, how to incorporate it into their teaching, and examine ways to connect it to their own curriculum.

**Fluency in 21st Century Information**
Presenter: Sylvia Norton

Learners today must question intelligently, test information and opinions, and apply critical and creative thinking. The session investigates questions through an information literacy process supported by an extensive access to resources. Participants will also explore the resources and tools of Maine's Virtual Library, MARVEL.

*Part I: Half session – see part II below*
**What is Meant by Creativity, Creative Problem Solving, and the Creative Process? What Exactly is Creativity and Can we Teach It? What Teaching Strategies may Enhance or Inhibit Student Creativity?**
Presenter: Bronwyn Sale

This session will provide participants with a brief overview of recent research from creativity studies and give teachers some specific strategies for promoting creativity and creative thinking in their classrooms.

Those inside and out of art education tout creativity, creative thinking, and creative problem solving as important components of education and the economic future. In the first part of this workshop we will review recent research on creativity, figure out what is meant by "creativity," and compare personal ideas and experiences regarding the creative process. In the second part of the workshop, examples of teaching strategies and assignments that help promote student creativity will be shared. This workshop is geared toward high school art educators. Teachers from all disciplines who want to learn more about creativity, creative problem solving, and the creative process are welcome.

*Part II: Half Session – see part I above*
**Notes between content areas using NoteShare! Psst…don't get caught! (Creative Connections across Content Areas)**

Presenters: Jim Small

Teachers will focus on making creative connections across content areas and find ways to increase creative thinking skills and problem solving skills, while gaining insight into the role of Creativity in 21 Century Education.

Participants will use and develop their Literacy and Technology skills as they experience creative conversation in Note Share. Quick Writes, Journaling, and Free word association will make for interesting connections across content areas, in the hands-on session. Participants will demonstrate creative thinking skills as they work with Leonardo's Seven Da Vincian Principals, Gardner's nine forms of intelligence, Synergetic thinking techniques, the revised Bloom's' Taxonomy, and

other resources. Participants will walk away with a Note Share file that includes the work and resources they have acquired in this workshop.

**EcoScienceWorks: ME Explorer**
Presenters: Phil Brookhouse and Laura Johns

There's a new application on the 2008 MLTI laptop image - ME Explorer. It's an inquiry-based ecology investigation with lesson plans, field studies, programming, and computer activities based on ecological models. Participants will be introduced to the modules and get some hands on experience. Hear the straight scoop from a teacher who has field-tested it. Bring your re-imaged laptops!

**Hello Light, I'd Like You to Meet Art and Science! HellHhHNew Interactive Software (FREE!) and Technology to Understand Digital Color and Digital Image Analysis**
Presenters: Jeff Beaudry and Polly Wilson

This hands-on workshop will extend over three sessions. It will give you a chance to understand how the science and art of color and light blend together, and to design lessons to take back to your classroom. All participants will gain experience with downloadable, easy-to-use computer software for learning color, digital images, and color analysis. Let's turn the light on!

Come to a hands-on workshop, where the science and art of color and light blend together. Colors enhance our enjoyment and perception of the visible world, and colors are used to measure the health of plants and living things. Digital Earth Watch, a NASA-funded project, has developed and is now disseminating easy-to-use tools and resources for learning about color, digital images, and color analysis. All of the computer programs are accessible free at http://mvh.sr.unh.edu click on "Free Software." Examples of middle and high school lessons will be presented. Light, as understood by artists and scientists, is the source of energy for all living things.

**Using Open Educational Resources in the Mathematics Classroom**
Presenter: Pamela Buffington

This workshop session is designed to introduce participants to a range of ***Open Educational Resources*** that include online applets, tools, web-based resources, and exemplary projects that utilize content centered technology application to support mathematics teaching and learning. The primary focus will be on the use of high quality yet freely available resources to support teaching and learning goals in mathematics at the middle and high school level. This is an interactive session that models strategies to support teachers and students in meeting national and state learning standards for school mathematics and ISTE technology literacy standards. Please bring your laptops!!


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