Title of Session: Math and Technology

Moderator: David Weksler **Title of File:** 20050719mathtech

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Room: After School Online

BJB2: wow, what a crowd!

DavidWe: Well done, Cynthia. You are here!

DavidWe: Impressive crowd, too

MiguelB: I am Mike from San Antonio, Texas....I am an ex High School Math teacher who is now teaching US History...and I also teach Math at a local college (Palo Alto College) and I am here to learn about any new technology being used in the classroom

BJB2: welcome, everyone, to the Math and Technology discussion

CynthiaL: Great, I'm here to learn from all of you, and to learn about your

DavidWe: Hi, folks, welcome. We'll begin shortly with introductions. Please type a bit about who you are, what you do and what you would like to get out of this session

GailH: I am Gail Hoskins, outreach coordinator with Eisenhower National Clearinghouse http://www.enc.org -- back before ENC (13 years ago) I was a high school math teacher and K-12 math coordinator. I am looking around for a new position since ENC funding ends in ten weeks.

RichardFi: Hi, I'm a community college math instructor in San Diego. I'm taking a edtec course.

DavidWe thanks Gail for going first

CynthiaL: I work with the Math Forum, former high school math teacher

MiguelB: I am Mike and am an ex High School Math teacher...who is now teaching US History

EdwardWF: Ed Freeland from LA Puente, CA. I am A new High School Teacher trying to get ideas on how to use technology in the class for Math.

DavidWe: Congratulations on being a new teacher, Edward

SusanMS joined the room.

GailH . o O (Ed is inn the right place!)

KevinL: Hi. I'm an elementary 5th grade teacher from CA taking an EdTech course

MiguelB: Just in case y'all missed it

NancyHe: I work for Michigan Virtual High School (www.mivhs.org), have taught high school math courses but am not doing this currently, and just stumbled in by chance tonight but am always interested in learning more about teaching effectively.

MarshaR: Marsha Ratzel from Prairie Village, KS...going back to the classroom after being tech integrator ...working in an integrated math/science classroom

DavidWe notes that his pulse is going faster

MikeCo: I am from Los Angeles, and work at a community college developing online course material. I am also enrolled in an online MA program at SDSU.

GailH: The words are scrolling by faster too!

DavidWe: Does everyone know how to make the chat window bigger?

BJB2: a reminder if you are new to Tapped In, go to the Actions menu in the top right of this chat window and click on DETACH

DavidWe: Let us know if you don't and also if you have any Tapped In questions

DavidWe hopes everyone has introduced themselves and will introduce himself

SusanMS: K to 8 teacher from Ottawa

SusanMS: all subjects

EdwardWF: Mike which JC are you at I spent 25 years at Mount S..A.C.

MikeCo: Pierce College in Woodland Hills

DavidWe: So, folks. I'm David Weksler. I was sitting in a room at Swarthmore College when Annie Fetter had the idea of the Geometry Forum as a way of getting more money from the National Science Foundation - that was in 1992

DavidWe pauses

CynthiaL: so David, it really was Annie's idea?

DavidWe: The Forum was funded for 6 years by that National Science Foundation at Swarthmore

DavidWe nods to Cynthia

DavidWe: I was in the room with Gene and Dan Gessel and Annie

DavidWe isn't sure why he was loitering again, but it's usually par for the course

DavidWe: So, we had to teach people how to do email - 12 years ago

GailH: For those who don't know, we are talking about http://mathforum.org/

DavidWe: Tapped In came along in 1997 and since it was also funded by NSF - we teamed up as a tenant organization to try to make use of online professional development

CynthiaL: very relevant to the current discussion of using technology and math

DavidWe: It's been one of my great pleasures to meet people (and work with) like Cynthia Lanius and Gail Hoskins who know more about teaching math than I do

DavidWe is very good at fixing non-working computers and at typing quickly

GailH . o O (and loaning his laptop, no questions asked!)

DavidWe: Gail probably said this but if you have to know a limited number of resources about math (and science) www.enc.org is one of them

DavidWe smiles

CynthiaL: so can I raise a question for discussion or is there an agenda already pretty much set

DavidWe: So, here we are, about 12 years into this ed tech boom and it is curious to me that I met a student from the University of Delaware (doing a summer job at a stationery store) who had never heard of the Math Forum nor of ENC

DavidWe hopes Cynthia (and others) will ask questions

DavidWe: Shoot

DavidWe listens

CynthiaL: I wonder what folks think are the advantages of using technology in teaching

DavidWe: Great question, Cynthia

IhorC joined the room.

DavidWe: Anyone want to give a response?

DavidWe waves to Ihor

MiguelB: I will let you know that it made my job easier....when I was teaching a SATEC course.

DavidWe: Hi, Ihor. Thanks for joining us

DavidWe . o O (SATEC is...?)

KatieS: Hello everybody

MiguelB: San Antonio Technology in Education Coalition

DavidWe: Welcome, Katie. We're talking about technology in teaching (specifically math, but...)

DavidWe nods

DavidWe: In what way did it make your job easier?

GailH: Cynthia, I think technology can empower the student to see lots of examples and change various attributes and discover patterns -- without getting bogged down in the mechanics. (But the mechanics need to get attention sometime too!)

MarshaR: I think it helps me allow students to discover things and ask questions

DavidWe appreciates Gail's response

NancyHe: using technology allows students to see the "big picture" (same idea as Gail's expressing)

DavidWe: In ways not possible WITHOUT technology, Nancy?

MiguelB: Well, lessons were made by all of us who were members of SATEC and it helped students understand math concepts a bit easier'

DavidWe . o O (that's a loaded question...)

CynthiaL: I remember the first time I saw a cubic equation graphed with a graphing calculator. I was stunned

DavidWe smiles

DavidWe: Yes

NancyHe: yes, David. Because a computer can do the tedious part.

DavidWe: Or, a demonstration of a geometric "proof" using animation in Geometer's Sketchpad

NancyHe: Sometimes it's good to look at the mechanics closely; other times it's good to see "where are we going with this"

DavidWe agrees with Nancy

NancyHe: each can motivate the other

DavidWe: Did you have something in mind in addition, Cynthia?

GailH: I think we have to be realistic about engaging the students we have today. Given what life is like for them, we are shooting ourselves in the feet if we don't attempt to be exciting and have action and participating.

MiguelB: We used some of our students in action to show different aspects of mathematics in motion

DavidWe: Sounds great, Miguel

NancyHe: also, the capacity for individualizing instruction. The apps that allow students to explore "what if" is self-motivating

CynthiaL: I can't type and read all the good comments at the same time, so I've chosen read

DavidWe: The first Sketchpad user group meeting at NCTM in Indianapolis (1994 - I think) was remarkable for me:

DavidWe nods to Cynthia

DavidWe . o O (a talent to develop, trust me)

DavidWe: 5 or 6 teachers sitting at circular tables taking turns showing each other sketches that their students had done

EdwardWF: I AM LISTENING HERE ALSO

DavidWe: It was the "I'm proud of this work and we'll put it up on the wall" moment that I've always remembered

DavidWe nods to Edward

CynthiaL: sketchpad is one of the best examples of students able to "discover" new things through technology

DavidWe: Sorry about the quickly scrolling text

DavidWe smiles and agrees with Cynthia

MikeCo: What is "sketchpad?"

MiguelB: sits here moving mouse so screen saver won't go on...

DavidWe wonders if Ihor would like to say a few words about CLIME

SusanMS . o O (Geometric Sketchpad???)

NancyHe: http://www.keypress.com/sketchpad/

DavidWe: Geometer's Sketchpad == sketchpad == GSP

GailH: If you don't know how to make the chat window larger than the default, type help and one of us will assist you.

DavidWe: A great piece of software for doing geometry on a computer, developed at Swarthmore College, prior to the Geometry Forum/ Math Forum project

DavidWe thanks Nancy for the URL

DavidWe pokes Ihor for an answer

DavidWe: I'll tell you all a bit about the NECC meeting, at least from my perspective

DavidWe: Take a quick look at: http://clime.org

DavidWe: If clicking on an URL doesn't give you a new window, Control click can get around pop-up blockers

IhorC: nice looking website.

DavidWe: Let me know when you've seen it

DavidWe grins

NancyHe sees it

DavidWe: Hey, I know the guy who designed it!

DavidWe: Want to say a few words about CLIME, Ihor?

EdwardWF: still having problems getting a big screen??

DavidWe: You could introduce yourself also, since you missed the intros

IhorC: I'm in a listening mode.

DavidWe: Can you drag the lower right corner of the chat window to make it bigger,

Edward?

EdwardWF: I have it thanks

DavidWe: Would you introduce yourself, please, Ihor...

CynthiaL: I can't get the url to open a new window to see your pointer

DavidWe nods to Edward

DavidWe: Control click, Cynthia, perhaps

DavidWe . o O (Windows?)

IhorC: I would if I wouldn't have to write it.

GailH . o O (and don't have pop-ups blocked)

DavidWe nods his head

DavidWe: So, Ihor Charischak (Ihor C) and I submitted a proposal to NECC to do a

session about Math and technology

DavidWe: It was meant to be a sharing session

KatieS: How are you visiting the URLs and staying in Tapped in at the same time?

CynthiaL: would you give the url again please

IhorC: I've been writing all day.... I'm just someone who is interested in the topic and has

a workshop to prepare for tomorrow that's not ready.

DavidWe: About 10 people showed up and in addition, we were also introducing a very cool, relatively new project from a group in Costa Mesa, CA called the Mind Institute

DavidWe: www.clime.org

DavidWe . o O (www.mathforum.org/clime)

DavidWe: Either should work

KatieS: What was the URL for sketchpad again, please?

MarshaR: I recognize something at your site....Lego and Papeurt.

DavidWe: You should get a separate window for an URL that you click on

DavidWe: www.keypress.com/sketchpad - Katie

KatieS: Thanks

GailH: If you aren't getting windows to work, I can help -- let me know.

DavidWe: By the way, you all may want to know that as members, you get a copy of the transcript, complete with LIPLs after you legant of Tannad In

transcript, complete with URLs after you logout of Tapped In

DavidWe: It shows up in email about 5 minutes later, typically

CynthiaL: got it thanks

DavidWe . o O (you don't have to take notes)

SusanMS: Thank you, David

DavidWe: The Mind Institute - the link is on the CLIME page - has a K-5 math and music curriculum that has produced some IMPRESSIVE results in a small number of

schools in southern CA

KatieS: Even if I accidentally booted myself out?

DavidWe: Andrew Coulson, the President of their education division did a short demonstration of some of their software

CynthiaL: So I've recently heard of this MIND institute also

DavidWe: Yes, Katie. You just wouldn't get what was said while you were logged off...you'll get two transcripts, I'm guessing

DavidWe nods

EdwardWF: Does any one have a suggestion of a good interactive lesson for beginning Algebra students that is interactive?

DavidWe: They have just started to move it to Texas and would like to obviously grow the project, disseminate the curriculum

CynthiaL: with technology, Edward?

DavidWe: Fine question, Edward

DavidWe looks at Gail

DavidWe: Mrs. Hoskins?

IhorC: The java microworlds on the CLIME page were first inspired by Papert's early work with Logo.

DavidWe . o O (or anyone)

DavidWe: What's a topic in beginning Algebra, Ed?

DavidWe: Give us a clue

SusanMS: Seymour Papert

DavidWe nods to Susan

EdwardWF: 's make it easy say exponential calculations

KevinL: I saw the math and music curriculum mentioned on the website. A broad overview, but what does it look like in practice?

SusanMS: father of Logo and Mindstorms. David

DavidWe nods to Kevin

SusanMS: and Turtle Geometry

NancyHe: http://www.explorelearning.com/ has science and math interactive activities

EdwardWF: ty Nancy

EdwardWF: Thank You

DavidWe: I'm not sure, I've only seen a little about it. There are demo CDs, but you may have to contact the Mind Institute folks directly to get the answers to specific questions

MarshaR: Does anyone know about Learning Barn's Microworld's world that will correlate with Connected Math?

DavidWe: I'm hopeful that I can get Andrew Coulson from that group to present in Tapped in

DavidWe: It was good to meet him in Philadelphia at NECC

DavidWe hopes that Edward got an answer to his question

NancyHe: also the NCTM "illuminations" at http://illumtest.nctm.org/pages/terms_st.html

IhorC: The microworlds were originally written in Logo and now web applets develop with microworlds pro and EX both products of Logo Computer systems inc. www.microworlds.com

EdwardWF: I think so Dave but I am here for more sites

MarshaR: When I heard Papert at CoSN in March he said they were preparing CMP specific explorations using Microworlds.

DavidWe: I may know a bit more than you, Kevin, about the Mind Institute stuff, but I'm really not aware of many of the details

NancyHe . o O (sorry the url for nctm illumination was a bad one... will look for a better one))

GailH: Edward, to answer your earlier question, look at the group on http://mathforum.org/mathtools/cell/a,ALL,tool,hh/

DavidWe thanks Gail for showing that URL to Edward

KevinL: I'll look into it

NancyHe: Try this url for NCTM illuminations:

NancyHe: http://illumtest.nctm.org/

DavidWe: I can give you contact information if you like - feel free to email me at wex@pobox.com

KevinL: Thanks

DavidWe thanks all the URL-posters

DavidWe: So, if I can pause the overlapping conversations for a minute...

DavidWe pauses

DavidWe: What Ihor and I would LOVE to have happen

DavidWe: Is to take advantage of the math and technology interest of you folks....

IhorC: Marsha, do you have any more details about Microworlds and CMP?

DavidWe shushes Ihor temporarily

DavidWe: Pardon me for just another 30 seconds...

DavidWe: The interest of the people who came to our birds of a feather session at NECC...

MiguelB: We did away with CMP and am now using Core Plus at our high school.

GailH listens for David to finish.

DavidWe: And take advantage of Ihor's long-standing interest in using technology (starting with LOGO) and other software that led him to build the CLIME web site (hosted by the Math Forum)....

DavidWe thanks Gail

DavidWe: To be an on-going discussion, online, synchronously in TappedIn (on a regular basis) and also...

DavidWe: Asynchronously through email, newsgroups, discussion boards, etc. to keep this conversation active and engaged

DavidWe . o O (DONE!)

DavidWe bows humbly

DavidWe: So, that's what we WOULD LIKE

DavidWe grins

DavidWe: What do you all think?

DavidWe apologizes to Ihor for shushing him

MarshaR . o O (Hope to hear more about CLIME)

KatieS: I think that I would like that very much, being that I am completely clueless about what everyone is talking about

DavidWe thanks Marsha for that leading comment

NancyHe: sounds interesting, David

DavidWe: Sorry, Katie. Some of us know more about each other than you may

KatieS: and technology

DavidWe: Talking about math and technology and the applications of technology in math education

EdwardWF: Katie I think it will take some time to learn some of this jargon but it starts here

DavidWe: Well, that's what we wanted to do as an outcome from teh NECC conference

DavidWe . o O (welcome back, Miguel)

NancyHe: maybe work on app development also, with microworlds, or more from user perspective, or both?

KatieS: Maybe I should graduate first

DavidWe: I'm really delighted (TRULY) that you all showed up this evening

MiguelB: Sorry went out to look at PBS site and logged out

IhorC: Miguel, did you use CMP in the high school?

DavidWe: We've been having the typical summer drop-off in attendance, so, this is a very welcome conversation

MiguelB: I used it in Middle school and High school

DavidWe: Where are you in school, Katie?

CynthiaL: I'd like to hear more from Katie about what she wants/needs

KatieS: University of Akron, Ohio

DavidWe . o O (Everyone introduced themselves at the start of the discussion)

DavidWe nods to Katie and waves towards Ohio

DavidWe: What year are you, Katie?

KatieS: Senior

DavidWe wonders how far it is from Akron to Columbus

DavidWe nods

KatieS: I student teach this fall

KatieS: 2 hours

DavidWe: And you would like to be teaching....subject/age group?

DavidWe . o O (Good luck with your student teaching)

KatieS: 4th- 9th grade, Math, Social Studies and Language Arts

DavidWe nods

EdwardWF: Katie's going to have a full plate

CynthiaL: ooh, great courses to integrate curriculum

DavidWe: Sounds like a broad swath of the educational palette

DavidWe smiles

KatieS: I hope so

DavidWe: Go ahead, Cynthia. Give her some ideas

MarshaR: wonder how clime fits with Forum's Tools?

DavidWe smiles

CynthiaL: have you seen google earth

KatieS: Google earth?

DavidWe nods yes to Cynthia

MiguelB: Oh yes..it is great

DavidWe: Very cool!

DavidWe: Works only on Windows at the moment

CynthiaL: true, David, sorry

DavidWe . o O (earth.google.com)

NancyHe: http://earth.google.com/

DavidWe hopes that is right

MiguelB: But you don't need to go to Google Earth...just type in an address on a google search and it will take you there

DavidWe: Thanks, Nancy

NancyHe nods to David

CynthiaL: but i just see it as such a fabulous tool for teaching geography and lots of math possibilities too

DavidWe: The application is still pretty cool, though, how you can zoom around

KatieS: What is it exactly?

DavidWe . o O (Cynthia...?)

MiguelB: Just use the tool bar on the left to zoom in and around

CynthiaL: it's a tool from google that uses satellite imagery to for you to travel around the earth

KevinL: As an elementary teacher who teaches multiple subjects like Katie soon might, the most difficult part of integrating tech in the classroom is finding the time while concurrently meeting all the standard. Any ideas?

CynthiaL: good question Kevin

MiguelB: When you go to google...type in your address include city state and zip and do a search....a map will appear showing you your specific address

DavidWe . o O (excellent question, Kevin)

CynthiaL: but does it take more time than not using technology

CynthiaL: Miguel, you have to actually download google earth It's not like google maps

KatieS: I agree with Cynthia

MiguelB: I just used a search to get to it.

MiguelB: I was at google earth but did not download it yet

KevinL: the curriculum sent down from the state is in paper form (textbooks, etc..), so to get through all of it alone in a year is a chore

DavidWe: It's worth the download (if you have a Windows machine)

CynthiaL: Miguel, yes, there's probably a demo, but to actually use it, you have to download it

MarshaR: I don't know. Maybe it's me. But the extra time is frontloaded. Once the kids figure it out, then you have to stand back and run to catch up with them.

DavidWe thinks Kevin's question is important to address. VERY important

MiguelB: If you have a mobile lab...it would help

KatieS: Kevin, which state?

DavidWe . o O (California)

KevinL: Yes, CA

CynthiaL: this could be a roll call, Texas too

DavidWe nods

MiguelB: And to answer Kevin...while doing a google earth lesson...you can cover mathematics, English and social studies in one shot

CynthiaL: but as long as the curriculum is "covered" doesn't matter if it is done with pencil and paper or with technology

DavidWe: That's why I'm really interested in the Mind Institute K-5 curriculum - it is showing BIG jumps in scores in the schools (Long Beach is one place) in CA and they are trying to take it to Texas, next

DavidWe agrees sadly with Cynthia about "covered" curriculum

CynthiaL: scores, do you want to set me off!!! scores? Sorry

DavidWe smiles

EdwardWF: Help me justify something here I love the technology but a lot of my kids do not have an access to a computer at home and the libraries etc. are always full

DavidWe offers Cynthia some of the soothing tea that BJ brewed up earlier

KevinL: We're getting a mobile lab this year, and I'm sure we'll use it often. Our school is ahead of the tech game more than most, but we will likely fall a bit behind in the standard curriculum

MiguelB: Do you have a mobile lab in your school...or a tech room

DavidWe hopes the more veteran teachers can offer some useful work-arounds to the younger teachers

CynthiaL: Edward, do you have a computer in your classroom

DavidWe: Kevin, Edward, how long have you been teaching?

MiguelB: You must understand that most of your technology work will be in school and not outside of school.

DavidWe . o O (curious me)

EdwardWF: I have one

MarshaR: No all technology has to be a computer. Sometimes it can be a calculator or a PDA or a CPS response system

NancyHe: can help to have a copy of "the curriculum" and align it with your projects, then fill in with the stray things that don't get covered in those projects to teach at other times

CynthiaL: and do you use it for teaching and learning

DavidWe nods to Nancy

EdwardWF: but I have many students if I want to make it a nightly event using tech I have problems

DavidWe: There's one idea...

NancyHe: (sorry I fell off topic a little while typing that out)

DavidWe smiles

DavidWe . o O (no problem)

DavidWe: Not sure if "nightly event" is possible, right, Edward?

CynthiaL: Nancy, I agree...Important

DavidWe . o O (be realistic)

KevinL: True Marsha, and our Everyday Math program makes use of calculators a bunch, but I wish the curriculum we received from the publishers had more tech written into it

MarshaR: My district is going to electronic textbooks as a way to save money and the kid's back!!!

CynthiaL: but I also think Nancy, that mathematics needs to be taught in its own context

DavidWe smiles

DavidWe . o O (those backpacks are pretty huge)

CynthiaL: Marsha, where are you from

MarshaR: The Discovering Algebra and Geometry books are now coming in electronic format.

CynthiaL: what state

MarshaR: KS

KevinL: How does the electronic textbook thing work?

MarshaR: So kids will have an electronic textbook for home and keep the book in the classrooms.

DavidWe: I think we've got a lot of the country "covered"

DavidWe . o O (online access to the texts, I'm guessing)

MarshaR: Publishers are even pushing us to consider using their online homework submission capabilities.

NancyHe nods to David

KevinL: Which publishers offer these alternatives?

DavidWe is interested in an answer to Kevin's question

EdwardWF: Marsha for math??

CynthiaL: and of course, there's the Math forum Problems of the Week service

DavidWe smiles

MarshaR: I read that some software flashdrive companies have figured out a way to "protect" their books so an entire curriculum's worth can be downloaded onto it for each student to have

NancyHe: student logs onto the e-text online, does activities (embedded in the text) sometimes, and (as Marsha says) also there are often problem sets for electronic transmission

DavidWe: Nancy, did you mention your work with the Virtual High School in Michigan?

NancyHe: Marsha, that sounds fantastic

MarshaR: HRW for one

DavidWe nods

DavidWe keeps one eye on the clock on the wall

NancyHe: I'm a liaison between schools in my part of the state who are using Michigan Virtual High School

NancyHe: we use hrw (Marsha mentioned them) for several of our math courses

KevinL: Thanks

IhorC: Kevin, for Everyday math take a look at the EM link in www.ciese.org/ciesemath. It's part of project I'm involved in.

CynthiaL: Nancy, do you want to tell us more about MVHS?

DavidWe: As this group is pretty engaged in this discussion AND that we have student teachers, teachers early on in their careers and some impressively veteran teachers, I'd

like to ask you all to contribute one other thing to the conversation before we end this evening

DavidWe encourages Nancy to explain further

DavidWe . o O (What would each of you like to have as topics for future sessions of this discussion?)

DavidWe gathers ideas

NancyHe: MVHS offers online courses to schools in Michigan. Students enroll through their counselor's office and the schools purchase course "seats" from MVHS

MiguelB: If you plan to use technology in the classroom make sure you make it interactive....I can tell you about a lesson that we created if you would like

EdwardWF: I thank you for the sites I picked up I got a few to check out the next few nights and the info on electronic textbooks is very interesting

NancyHe: courses are 100% online and taught by certified teachers (most are Michigan teachers) using a course management system (Blackboard for most courses)

RichardFi: Marsha, have you or anyone else used an audience response system? I think that's what CPS response system was referring to?

DavidWe: How long has it been running, now, Nancy?

EdwardWF: Miguel I would love that

CynthiaL: do you all know about Moodle, Nancy

EdwardWF: nope

DavidWe raises his hand

CynthiaL: free, course delivery

MarshaR: I used Microworlds to explore all sorts of things with math kids...area of irregular shapes by using the size of a box as a variable, for example. I wish I could do more like this. This is very accessible by all my kids ability ranges. I wish I could find more people who want to do stuff like this.

NancyHe: MVHS offered AP courses in 2000-01 and first offered traditional-level HS courses in 2001-02

DavidWe: Sounds great, Marsha

NancyHe: Cynthia, I don't

MiguelB: We got our students to go outside and take a picture of a flag pole and a smaller object that could be measured easily

DavidWe: Marsha, you've got a friend in Ihor

DavidWe: Cool, Miguel

NancyHe: Cynthia, I just looked up Moodle. I don't make those decisions but it's good to know

DavidWe thanks Nancy for the MVHS history

MarshaR: I have used CPS tons...almost daily for the last 2 years. Not with math because I wasn't teaching math. But with science.

MiguelB: Then we measured the smaller object and used pixels to find the exact height of the flag pole using proportions

IhorC: the best source of microworlds info right now is Wendy Petty at mathcats.com.

DavidWe: Miguel, Ihor can tell you how to paste that picture INTO sketchpad

MiguelB: Well I didn't do the lesson, it was one of my colleagues

IhorC: Quick and dirty. I mean copy and paste. Nothing special.

MarshaR: Mike, I just saw something almost like this....how to explore the orbit of the earth by looking at time sequenced pictures of the Sun. Pixels tell the story of how far away we are at any given time.

MiguelB: But if you wish, I can get that information for you when school returns

GailH: clickable at http://www.mathcats.com/microworlds.html

DavidWe: Thanks, Gail

CynthiaL: Thanks, Gail

KevinL: David, I would love to hear more about K-12 tech-rich programs offered by publishing companies. Individual lessons are interesting, but if we want to make this a more permanent solution, it needs to be more comprehensive

 $\boldsymbol{DavidWe}$. o O (I'm impressed! Everyone ELSE is doing the work - I'm going out for coffee)

GailH would like to suggest something.

DavidWe: I agree, Kevin

EdwardWF: Dave bring a cup of tea for me

DavidWe: What's that, Gail?

DavidWe takes beverage orders

GailH: OK, a little bit ago with David said what he was hoping would happen.....

DavidWe notes that we are getting close to the end of the hour

DavidWe listens attentively

GailH: I think it would be good if we revisited what he is hoping for and what we might want to think about trying to do.

GailH: So this isn't a one-shot nice discussion.

DavidWe agrees VEHEMENTLY

GailH stops talking.

DavidWe: I'm a networker - I like to put people in touch with things that I know

SusanMS: Glad to hear about the increased interest in using Logo to master problem solving skills in Math. I feel it will enhance math literacy and improve mastery of geometry in Algebra in learners of all ages. A super discussion!

DavidWe: Tapped in helps me a great deal

SusanMS: ditto, David

DavidWe: So, following Gail's lead, do contribute a thought/concept/wish that you would like to see a discussion focused on, so I can plan for the future

MiguelB: Any geometry teachers out there?

DavidWe: By the way, tomorrow...

DavidWe pauses dramatically

EdwardWF: Dave will you be in the discussion tomorrow I think at 1:00

DavidWe: Is the Tapped in Summer Festival!

DavidWe: I'll be online ALL DAY, I think

DavidWe smiles

KevinL: publishing companies that are making the grade technologically

DavidWe: http://tappedin.org/tappedin/web/festival/index.jsp

NancyHe: what time zone is 1:00?

IhorC: David, lets keep track of folk's emails for CLIME emailings in the future.

KevinL: there's my 2 cents

NancyHe: thanks David

DavidWe: Yes, I will, Ihor

DavidWe nods to Nancy

DavidWe: Thank you very much, Nancy, for participating

EdwardWF: west coast daylight savings

CynthiaL: Ihor, I'd be interested in that

DavidWe: Click on the above link for the festival and it will lead you to the schedule

GailH: Look at http://tappedin.org/tappedin/do/CalendarAction? and set for YOUR time zone and see the choices.

MiguelB: I guess no one teaches Geometry!

DavidWe: Tapped In defaults to California time, so adjust the calendar to your particular time zone

DavidWe: A lot of us teach Geometry, Miguel

GailH used to teach geometry and has some resources to share sometime.

DavidWe smiles

NancyHe: I've taught HS geometry but not in a while

MarshaR: I teach geometry...in fact all other strands, too!!!!

DavidWe knows that Gail and Cynthia and Nancy teach/taught Geometry well

KevinL: Thanks everybody, bye for now

MiguelB: Well try this lesson I used to teach Parallel lines and learning the angles which are congruent, and supplementary

CynthiaL: I've taught it LOTs and would love talking to you about it

DavidWe: Thanks for joining in, Kevin

DavidWe smiles

SusanMS: excuse me, Miguel..it is an important strand on our grade 1 to 3 curriculum

DavidWe: We can continue this conversation for as long as people want to stay logged in

MiguelB: It was quite successful

RichardFi: Thanks, David, you're an excellent moderator.

DavidWe: But don't feel obligated to remain

DavidWe bows humbly

NancyHe is listening to Miguel

DavidWe: Thanks, Richard. I appreciate that

MarshaR: Thanks for this. I hope that somehow there can be more collaborative work to peruse a topic more in depth.

MiguelB: When you teach parallel lines....use FUN

DavidWe: Yes, Marsha. that's the idea

GailH must run, but thanks David greatly and would love to think about geometry specifically another time.

DavidWe: Thank you, Marsha, for contributing

MarshaR: This was a new group for me and I'm delighted that I decided to try it.

DavidWe waves bye to Gail

BJB2: David's next math and tech discussion will be on August 16

SusanMS: I just taught parallel and perpendicular lines to grade 4's and 5's

DavidWe . o O (Geometry RULES!)

CynthiaL: bye Gail, so great to talk to you

DavidWe: Cool, Susan

KatieS: Thanks, bye.

DavidWe waves to Katie

IhorC: good session, David.

DavidWe: Take care, Katie

SusanMS: Thanks all, great discussion

DavidWe: Thanks, Ihor

MikeCo: Thanks everyone. This was my first time participating in a chat. Great resource!

CynthiaL: yes, great...

GailH: Yes, Cynthia. (I am still looking for new place to land after September!)

DavidWe smiles

DavidWe: You guys make my job CAKE!

MiguelB: Great session David and thanks for everyone else

DavidWe smiles

CynthiaL: I know, lucky folks that catch you, Gail

DavidWe: Really appreciate EVERYONE participating

DavidWe smiles

EdwardWF: a BIG TY David

DavidWe: Good luck, Edward

MikeCo: bye everyone

DavidWe: It's one of the roles of TI - to support teachers

DavidWe waves bye to Mike

DavidWe: If anyone remaining would like more information about the Mind Institute

folks

DavidWe: I have some brochures. I can mail

EdwardWF: hasta ma bye bye people see you all mana

DavidWe . o O (my recycling program)

MiguelB: that was a great try at spanish by edward....LOL

MarshaR: I don't know about Mind, but I'm very interested in your CLIME project and finding others who want to do this. I just feel so math inadequate when I have to do something and don't know how to match instructional resources with purpose.

DavidWe nods

DavidWe: Well, Marsha, hang on for a sec, if you have the time

DavidWe: First, don't feel "math inadequate"

DavidWe: That's too easy to do and there are always people who know more

MiguelB: Well I do...and I have been teaching math for 19 years now....

DavidWe: Ihor's life was changed (I may be exaggerating) by learning about LOGO and

Papert, etc.

MiguelB: So many new things to learn out there

DavidWe: There is an interesting community of Papert adherents

MarshaR: When I've read and listened to Papert I just feel like there's so much more to

do.

MarshaR: a sort of frantic wish I could show it all to my kids so they'd fall in love with math

NancyHe: There's always SO MUCH MORE, etc. Just do what you can and keep

learning

DavidWe: Well, there always is

DavidWe: Where/what do you teach in Kansas, Marsha?

MarshaR: I've been around the horn as they say!!!

DavidWe checks to see that Nancy wasn't looking over his shoulder before he typed

DavidWe smiles

DavidWe: Baseball, huh?

NancyHe winks

MarshaR: I've been a middle school teacher...and you know we're the jack of all trades and master of none.

DavidWe nods

DavidWe: That's my job title!

MarshaR: So next year...I'm back in 6th grade

DavidWe: I'm not qualified for much

MarshaR: With 3 hours of math and 2 of science.

DavidWe: What part of the state are you in, Marsha?

MarshaR: Outside of Kansas City...a little south and west.,.. in the Blue Valley School

district.

DavidWe: Anyway, Ihor works with a group at Steven's Institute of Technology

MarshaR: I've seen their projects...used the Noonday sun one even.

DavidWe: I was supposed to help him with a software for middle school math workshop

in New Jersey tomorrow, but I'm going to be in Tapped In for much of the day

DavidWe: Great!

DavidWe: He is a great support person and would, I'm sure, be happy to correspond with you and...

DavidWe: Give you his ideas, etc.

DavidWe: Is that helpful to you?

MarshaR: Do you run into others that are interested in this?

DavidWe: Yes!

MarshaR: Yes...anything is helpful. I wish that Papert's site would publish his new work.

DavidWe: The NECC conference is a great opportunity to connect with those folks

MarshaR: He said they were going to in August, but I haven't seen anything yet.

DavidWe: However, since that doesn't happen again until 4 July 2006 in San Diego - things like Tapped In are ways to keep the conversation going

MarshaR: But I also want to learn more about how to use photo editing, digital photography and SmartBoard stuff to teach math.

DavidWe: Sure

MarshaR: Does your group address these kinds of things?

MiguelB: Okay...I am gone...thanks...haven't been in a chat for a long time...and won't be for a long time again...

DavidWe: Can you take a course somewhere, get other students/teachers to work with you on the technology stuff?

DavidWe: Thanks, Miguel

NancyHe: nite Miguel, mucho gusto

DavidWe: I appreciate you joining us and for your comments to the others

DavidWe: Vaya con Dios

MiguelB: you are quite welcome

DavidWe: See you soon, I hope

MarshaR: Well, thank you for doing this session and I'll keep my eyes open for anything else you all do.

NancyHe: Marsha, is there a local/statewide organization for teachers integrating technology?

DavidWe: Do you know about CUE - Computer Using Educators?

MarshaR: No. Usually when I start asking questions like this people's eyes roll back in their heads.

DavidWe: ISTE - is the big organization that sponsors the NECC conference

MarshaR: A bit.

MarshaR: And I know all about ISTE

DavidWe: http://www.iste.org/

DavidWe nods

NancyHe: in Michigan we have MACUL (<u>www.macul.org</u>) and there are lots of workshops etc. Anything in KS?

MarshaR: No. Nothing here in KS.

MarshaR: It's tough to even find TI Calculator training in KS...usually have to go to St.Louis or Dallas or Chicago.

NancyHe: can you get involved in METPA? It's not Kansas but "next door" in Missouri... they're the local ISTE affiliate there

DavidWe: http://www.altec.org/index.php

DavidWe: Do you know about that, ALTEC, it's in Lawrence at KU

DavidWe: Somewhere from that organization FedEx'ed me a box of their brochures. I can't recall who I met or when I asked for that

NancyHe: (David's suggestion probably beats mine... METPA doesn't have much of a web site)

DavidWe smiles

BJB2 . o O (ALTEC does trackstar and rubistar)

DavidWe nods to BJ

DavidWe: Right

BJB2 . o O (they're on the schedule for the festival tomorrow

MarshaR: Oh yeah. I know about ALTEC. We use their Notestar and Rubistar quite a

DavidWe: But they are at the University of Kansas in Lawrence, perhaps they are a more local resource

MarshaR: Well, I'm cool with coming here and just listening and learning.

DavidWe tries to figure out what would make Marsha's day

DavidWe: Thanks for joining in the fracas, today

MarshaR: What made my day was being a great group like this.

MarshaR: Thank and sorry about taking so much time here at the end.

DavidWe: Not a problem at all, Marsha

MarshaR: I'll let you go. But I'll be back, if I can for the next session.

DavidWe nods

DavidWe: We may try to run these more than once a month

MarshaR: Hope your project goes well and tons of people join in.

BJB2: do come to the festival, Marsha

DavidWe: There is also a K-12 math session, the first Tuesday of the month - it often involves technology, too

MarshaR: I have several sessions already planned for my calendar tomorrow....wouldn't miss it.

DavidWe . o O (also science)

DavidWe: Jeff Cooper (JeffC) leads those

MarshaR: Thanks.

MarshaR: Bye for now.

DavidWe: Ciao

DavidWe: Thanks again for joining us, tonight

NancyHe: I can't believe every state doesn't have an ISTE affiliate. Michigan has THREE and I don't think we're all that "on top of things"

DavidWe: Good luck with your teaching