

Title of Session: Math and Technology
Moderator: David Weksler and Jeff Cooper
Title of File: 20060718mathedtech
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Room: MathEdTech Group

JorgeAN: Hi. Am I in the right place for the Math & Technology Event?

GeoffreyW: I think so, that is what I am expecting

BjB: hi, Geoffrey and Jorge. Yes, you are in the right room

BjB: give me a moment to announce and we can get started

JeffC joined the room.

BjB waves to Jeff

BjB: welcome to tonight's Math and Technology discussion

BjB: before we start...

BjB: if you are new to Tapped In go to the Actions menu in the top right of the chat window and click on DETACH

BjB: That will make your chat window larger and easier to read

BjB: we usually start all the Tapped In discussions with introductions.

JeffC: Before we start with introductions... I suggest we move this to the Math Resources room. I have to leave for a bit (kid duty) but should be back within 20 minutes.

BjB nods to Jeff

JeffC: There are a number of resources/links there that people can look at before I get back.

JeffC: Heads there and will be lurking and moving as fast as I can till I can get back.

JeffC left the room.

BjB: the window that you just detached has Featured Passageways

BjB: scroll to Math Resources K-20+

BjB: and click on the door

BjB: or type /join JeffC

BjB checks to see if Geoffrey and Jorge are still breathing

JorgeAN left the room.

BjB . o O (whew!)

GeoffreyW left the room.

BjB left the room.

Room: Math_Resources

BjB joined the room.

BjB cheers...excellent job!

BjB: as Jeff mentioned, we usually start all the events with introductions

BjB: please tell us where you are located, what you teach and what brings you to the discussion.

GeoffreyW: I teach in central Virginia. I taught 8th grade last year but 7th grade thus upcoming year. I am the administrative intern this summer at my school and am visiting because of my tech class

BeckyEla joined the room.

BjB: good job, Becky. We're just doing introductions

GeoffreyW: hey Becky!!!

BeckyEla: finally

BeckyEla: what going on Geoff

BjB: Jorge?

JorgeAN: Hi. I'm also in Virginia, I teach 6th Grade Math, and I'm here as an assignment for a graduate class in leadership in educational technology.

GeoffreyW: just relaxing

BjB nods. Thanks!

DavidWe joined the room.

BjB cheers. Hi, David!

BeckyEla: I am from Virginia also Jorge and completing this for an assignment in ed. leadership

DavidWe waves to Jeff from SF airport

DavidWe: Sorry to be late, folks

BjB: David is the leader of this discussion.

DavidWe: I'm traveling back to New Jersey from Los Angeles and I'm stuck for a bit in the San Francisco airport

BjB: we've just done intros, David

BjB: Jorge teaches math and everyone is here for a class in ed tech

GeoffreyW: Jorge, where are you located?

SusanR joined the room.

DavidWe: Thanks for logging in today

DavidWe thought he would have been online at the right time but had to check out the flight delay problem

DavidWe is glad that he heard ALL of them

DavidWe: I'm David Weksler. Normally I live in New Jersey, near New York City

DavidWe: I was just in San Diego where Jeff and I gave a workshop on Tapped In (3 hours hands-on) and then I gave a 1 hour presentation a couple of days later

DavidWe . o O (NECC - www.neccsite.org - National Education Computing Conference)

DavidWe waves to Jorge and Geoffrey and Becky

DavidWe waves to Susan

JorgeAN: Gainesville, Virginia ...near Manassas

DavidWe smiles

BjB: hi, Sue. We're finishing up intros

DavidWe: Civil War fan, Jorge?

GeoffreyW: Becky and I both live in Fredericksburg

SusanR waves

DavidWe . o O (Maryland, right?)

DavidWe . o O (Virginia?)

SusanR: I am in Ottawa, Ontario Canada

JorgeAN: No...Cowboys fan...

DavidWe smiles

GeoffreyW: I love Canada

DavidWe hopes it is cooler in Canada than in New York

SusanR: me too

SusanR: We just went through an extreme hot spell and thunderstorms as well

DavidWe thinks the weather will break in the northeastern US also, by tomorrow

DavidWe: So, what are folks interested in...math...technology...Tapped In - the big Tapped In Festival taking place tomorrow?

DavidWe encourages shouting from the audience

BjB cheers for the Festival

DavidWe smiles

DavidWe always likes having a "plant" in the audience

BjB waves her leafy arms

DavidWe: Bj, I was at the La Brea tar pits museum earlier today (in LA) and I spoke with someone there about using TI for science education and mentioned Bill Hilton's science discussion

BjB: cool!

DavidWe: Geoffrey, Jorge, Becky...anything in particular you are looking for? Resources, web sites, the solution to the quadratic equation general form?

BjB: Bill's Nuts About Nature Environmental Education discussion is later this evening

GeoffreyW: pi r squared is my favorite formula ever

DavidWe: Bill is an expert on hummingbirds

BeckyEla: websites and resources

DavidWe: There you go!

DavidWe: What do you teach, Becky?

BeckyEla: gifted ed

DavidWe: . o O (grade level?)

BeckyEla: k-5

GeoffreyW: middle school

DavidWe: younger or older?

DavidWe: nods

DavidWe: Know about the Math Forum - www.mathforum.org

DavidWe: can't recall if Becky has been here before

BeckyEla: use it often

BeckyEla: First timer

DavidWe: I was part of the group of people who developed that web site

BeckyEla: awesome site

DavidWe: What do you find your K-5 gifted students are hungry for, at least when it comes to math?

DavidWe bows humbly

BeckyEla: they lack spatial skills - working with tangrams, pattern blocks, etc.

DavidWe: There's K-20 stuff on the math forum so the kids who are ready for high school level stuff should be able to find some things that challenge them

DavidWe: Know about the web unit on the Math Forum about pattern and symmetry in oriental rugs?

BeckyEla: I don't think so

DavidWe: <http://mathforum.org/geometry/rugs/>

DavidWe: Very cool collaboration between the Math Forum and the Textile Museum in Washington, D.C.

DavidWe wonders if Bj has a favorite Escher web site to get the conversation onto Escher

BeckyEla: great field trip idea

DavidWe: There's some nice educational resources that link of that main page, I just posted

GeoffreyW: my students love some Escher

DavidWe: Just saw some cool things at the LA County Museum of Art

DavidWe: Well, the beginning of this story for me is that my family lived in London for the 1967-68 school year

DavidWe: I was in 3rd grade (2nd form in England)

DavidWe: We traveled a lot in Europe that year

DavidWe: My father had read about Escher in Scientific American. We were in Holland and my Dad called Escher on the phone and we were invited to his house and shown around his studio

DavidWe: My father bought a print for some small amount of money

DavidWe: Escher came from a family of civil engineers, I believe

DavidWe: When he was challenged by math in school as a young student, his family felt that he was not capable of joining the family profession

DavidWe: So he studied graphic arts and then, during a trip to Spain...

DavidWe: When he saw the intricate tiling patterns of the Alhambra, his interest in geometry was sparked

GeoffreyW: I have been there a few years back...

DavidWe: From there on he ended up discovering new ways of "tiling the plane" - tessellations - that have intrigued mathematicians and others since

GeoffreyW: the art work is great and most all based on patterns

DavidWe: But he, like Einstein, apparently, wasn't very good at math in school

DavidWe nods

DavidWe: Yes, so much is based on recognizing and utilizing patterns

DavidWe: This is the "official" web site for him:

DavidWe: <http://www.mcescher.com/>

GeoffreyW: I have a great Escher tie

DavidWe: I believe one of his sons lives in Canada and lectures about his father's work

DavidWe . o O (Escher was left-handed)

GeoffreyW: so Becky, do you incorporate any types of cooperative learning into your teaching?

BeckyEla: When I was in the classroom I did more often than I do with the gifted students.

BjB: why is that, Becky?

GeoffreyW: how did the students respond to the different roles they played in the cooperative groups?

BeckyEla: I still do cooperative activities but with small classes it is a little more difficult

BjB: what about project based learning?

BeckyEla: gifted students tend to want to be the leader in all groups and it is difficult for some of them to take what they consider as a weaker role

BjB: <http://pblchecklist.4teachers.org/>

BeckyEla: problem based learning absolutely works with gifted because they can focus on their own interests

DavidWe: But, often that is something they may NEED to learn, too, right, Becky?

DavidWe: . o O (how not to see themselves as #1 all the time)

DavidWe: That can be a challenge when they know that they are smart

BeckyEla: absolutely, if they open their minds

DavidWe smiles

GeoffreyW: they should be exposed to following others directions though too\

DavidWe: Why we teach....

GeoffreyW: they should learn how to work with others too

DavidWe remembers say "ooh, ooh, ooh" a lot in 5th grade

DavidWe: I was quick at arithmetic...

SusanR: btw these daily brains would be perfect for PBL; cooperative grouping and the gifted

DavidWe: Which is NOT quite the same as being "good" at math

SusanR:

<http://www.mathmastery.com/DailyBrains/browse.cfm?themeID=6#Session.Token%23>

DavidWe: Seeing how the math comes into play in a larger project can be a useful way of getting students to think about creating models (mathematical or otherwise) of the real world

GeoffreyW: students can definitely benefit from real world applications

DavidWe: Always

BeckyEla: do you feel that students are better able to create models if they have had exposure to visuals and hands-on instead of just explanation?

DavidWe: Certainly...different representations may give one different insights

DavidWe: How to represent a concept

DavidWe: May I show you something my niece did? - it's a small flash animation - it should run by itself in most browsers

BeckyEla: sure

DavidWe: <http://www.eskimo.com/~wex/1+1.swf>

DavidWe: It just loops after a while

DavidWe: She was just playing around after taking a week of computer camp where they learned how to use FLASH to make animations

DavidWe: . o O (Justine is 15 and going into 10th grade in the Fall)

GeoffreyW: that is awesome!

DavidWe smiles

DavidWe: Took about 20 minutes for the basic idea and then we tweaked it a bit

DavidWe: But that's the kind of things kids could do...represent math in interesting ways

DavidWe: I was really impressed (I don't know how to use FLASH)

GeoffreyW: it happens that I love circles too....very cool

DavidWe smiles

DavidWe: We did the fill of the circle to get the idea of area/circumference

BeckyEla: nice representation

DavidWe: But we all tend to be very drawn to things that move - animate the ideas

DavidWe nods

SusanR: I have seen grade 6 and 7 students create flash projects with relative ease.

DavidWe: Certainly

DavidWe: The software is just NOT THAT HARD to use

DavidWe: Once they learn the basics their imagination is much more important

DavidWe: Justine was taking both geometry and algebra this past year in 9th grade - she finds math fun and interesting - not the typical response

GeoffreyW: if we can have students use their imaginations in mathematics, the possibilities are endless

BeckyEla: People tend to forget that math can still be imaginative and creative.

DavidWe: But she's also very artistic and loves making things

DavidWe agrees with Geoffrey and Becky

DavidWe: The challenge is to build this stuff on top of some basics and also understand the current testing priorities that many schools need to respond to

DavidWe: The trick is not to throw away ALL the interesting stuff

DavidWe: Does anyone know of or use the software program The Geometer's Sketchpad?

GeoffreyW: teachers can still be creative with their lessons despite the standardized tests

GeoffreyW: I have used that program before

DavidWe: Although initially developed for high school geometry, it really can be used in middle school and also, I believe, with elementary students, especially gifted ones

GeoffreyW: I used it with 8th grade students and they loved it

DavidWe: Here's the main web page for the publisher, Key Curriculum Press:

DavidWe: <http://www.keypress.com/sketchpad/>

GeoffreyW: they thought that only advanced students were able to use it, so they loved showing off the fact that they could create and teach others

DavidWe: There are curriculum supplements for special areas. This one is directed at Middle School students specifically:

DavidWe:
http://www.keypress.com/catalog/products/software/Prod_GSPModShpMkrs_v4.html

DavidWe: Often the "advanced" studies (when studying from the book, etc.) are not ALWAYS the "advanced" students when it comes to using software

DavidWe . o O ("advanced" students*...)

DavidWe: The great thing about Sketchpad, I believe, is that it is essentially a blank sheet of paper with some tools that do things - it's up to YOU to figure out WHAT to do

DavidWe: I think all of us (Bj, Susan, Jeff and me) all believe that all this technology stuff is simply an addition to the tools that teachers have access to

GeoffreyW: after the student played and figured out that they could find equations, they were even more interested

DavidWe: Often the students will discover things in the software that the teachers may not be aware of

DavidWe . o O (It is important to play)

DavidWe: Teachers who don't mind having the students lead some of the discussion can give up some of the responsibility for "knowing all the answers" and encourage the students to take on some leadership roles when it comes to learning new things

GeoffreyW: students (well, people) need some time to play and experiment to become familiar with the tech, manipulatives, etc

GeoffreyW: ah, guide on the side

DavidWe . o O (Sage on the stage -----> Guide on the side)

DavidWe: Exactly

BeckyEla: Empowering the students is an art form that can create wonderful learning environments

DavidWe smiles

DavidWe: That play can happen in an educational context...there can be some direction to it...but the "playing" around can be very valuable

DavidWe: Getting students to realize that they have a role to play IN THEIR OWN education

SusanR: Have the students become TECH-SPERTS by having each student teach one area/aspect of the software to the class ...

BjB . o O (we find that many teachers new to Tapped In need 'play' time to become comfortable in the interface)

BeckyEla: That is the trick to developing lifelong learners

DavidWe smiles

DavidWe: Yup!

JeffC: back

DavidWe wonders if Jeff wants to say something about Collaboration Central

JeffC: you made it David!

DavidWe: Jeff leads a discussion on collaboration

DavidWe waves from SF airport

DavidWe . o O (flight delay)

GeoffreyW: tech-sperts...I like that, just like they would with content..

JeffC: it meets every other Saturday from 10-11a.m.

JeffC: We look for ways to collaborate on lessons, class sharing in the K-12 campus, etc.

JeffC: all subjects, etc.

DavidWe hopes everyone knows about the Tapped In Festival that will take place ALL DAY, tomorrow, Wednesday, 19 July 2006

DavidWe . o O (beginning at 11am EDT)

DavidWe: Let me know if anyone has other questions

BeckyEla: Thanks

DavidWe smiles

DavidWe: You're welcome. Thanks for logging in today

SusanR . o O (tease us with one highlight from NECC, David)

DavidWe: We'll see...

JorgeAN: This was my first session. I found it to be very interesting. Thank for the websites. They are great resources that I'm going to checkout.

DavidWe: Thanks, Jorge

DavidWe: I hope it was useful to you

JeffC: I'd like to mention something about this group here.

DavidWe thinks about a highlight from NECC

DavidWe: Jeff wearing a tie and suspenders on tv was a highlight

JorgeAN: It was. I look forward returning.

DavidWe wonders if Jeff has video

SusanR: just one, David..I realize there were many

JeffC: Even though this is David's MathTech session... I'd like to tell people to join this group... if you post to Discussion here, it will go out to over 200 math educators.

DavidWe thinks

JeffC: Which is a great way to collaborate, get ideas, answer and ask questions, find lessons etc.

JeffC: If you do join and post, be sure to include your email address, since it's a one way list *out* of Tapped In (replies don't work).

DavidWe: Nicholas Negroponte, head of the MIT Media Lab, spoke about the soon to be distributed \$100 laptop initiative

DavidWe: <http://laptop.media.mit.edu/>

DavidWe: This works too, and is shorter:

DavidWe: <http://laptop.org/>

DavidWe reminds everyone that "Nuts About Nature - Environmental Education" begins in 30 minutes

GeoffreyW: that will be very significant for schools

DavidWe: And for people who barely have schools in other parts of the world

JorgeAN: I have to logout. Thank you all.

DavidWe: Thanks, Jorge. Take care

DavidWe waves bye

BjB waves bye and goes to do some last minute stuff for the Festival

DavidWe hugs Bj

JeffC: If anyone has questions/comments... I'll be here.

BjB hugs David. Take care

DavidWe: I'll hang our a bit longer if anyone has other questions

DavidWe: Thanks, Bj