

Title of Session: Math and Technology

Moderator: David Weksler

Title of File: 20070116mathedtech

Date: January 16, 2007

Room: MathEdTech Group

BJB2: welcome to tonight's Math and Technology discussion

BJB2: we usually start all Tapped In events with introductions. Are you ready to do that, David?

DavidWe: Sure thing, Bj

DavidWe: I'm David Weksler. I lead this math education and technology discussion and I'm a HelpDesk volunteer for Tapped In. I'm in New Jersey, near New York City

MaureenB: Hi Maureen Beyrer I teach 4th grade in Putnam County NY

DavidWe: Say a bit about what you teach and what you are interested in, too, please

EmilyW: I am Emily, I am a web designer and on helpdesk on TI

PatriciaCh: Hi Pat ...I teach 7th grade math in Florida, I lead the discussion in Robotics k-12 room...

BarbaraTaf: Hi I'm Barbara and I'm teaching 5th grade in Hermosa Beach, CA

JeffC: I'm on Tapped In Helpdesk, in Forest Grove Oregon... Education Technology Support Consultant.

DavidWe: Would quickly tell us who you are and where you teach?

DavidWe thanks Jeff

DavidWe: Welcome, folks. Thanks for joining us for this discussion

DavidWe: If you don't mind typing a bit more...let me just ask you what technology (related to math) you may be using already and what you may be interested in learning more about

DavidWe: Just helps me frame the discussion a bit

DavidWe thinks he has some things ready for the K-8 crowd which seems to fit nicely with who is here

MaureenB: I use the computer mainly for games to increase computational skills.
Looking for more ideas

DavidWe: Okay, thanks, Maureen

BarbaraTaf: I would love to integrate more technology in math - currently using some math related programs and websites.

DavidWe: We will be posting some web sites

BarbaraTaf: Excellent

DavidWe: In Tapped In you can click on the URLs (they will be in blue) but you may need to disable your pop-up blocker or allow pop-ups from Tapped In

DavidWe: Otherwise, you may get tossed out of the chat

DavidWe: Everyone understand that?

PatriciaCh: Our school district has an account with United Streaming ...I am able to show clips to the students

DavidWe: Here's an example and one of my favorite starting points - the Math Forum - www.mathforum.org

DavidWe nods to Patricia

DavidWe: Do all of you know about the Math Forum?

PatriciaCh: yes

MaureenB: yes

DavidWe . o O (big web site has been around for a while - part of it is subscription-based (the Problems of the Week) but a lot of it still is free)

DavidWe: I was part of the group of people who started the Geometry Forum (became the Math Forum in 1996) in 1993

BarbaraTaf: not a whole lot but I will check it out

DavidWe: Do folks also know about the Tapped In transcript you receive as members?

DavidWe: After you logout, you'll get a transcript of this conversation...you don't need to write down web site addresses and other details you see in the chat

MaureenB: have to check out the geometry that's the unit we are starting next week

DavidWe smiles

DavidWe: So, let me share with you something I thought might be interesting

DavidWe: Do you know about the software Inspiration?

PatriciaCh: yes

BarbaraTaf: yes, we use it at our school

MaureenB: yes use it in ELA, Science and social studies

DavidWe: It's an idea charting software that is well-established in education

DavidWe: Have any of you seen one of the companies new products which is called "InspireData"?

MaureenB: no

BarbaraTaf: No - sounds interesting

DavidWe: This is a wonderful graphing, sorting and math analysis tool that was developed under the name Table Top, but is now being marketed (since the last NECC meeting in July) as InspireData

DavidWe: Here's the web page:

DavidWe: <http://www.inspiration.com/productinfo/inspiredata/index.cfm>

DavidWe: Take a quick look and then I can tell you a bit more of what I know

DavidWe: It's not expensive

DavidWe: They offer a 30 day download of a working copy

DavidWe: It has all sorts of alignments to standards

DavidWe: It's very much in the same vein as Inspiration (there is some integration between the two software programs but I'm not sure how that works)

DavidWe: I have a very nice egg-yolk yellow t-shirt from the company

DavidWe smiles

DavidWe: It's really meant to introduce data analysis, grouping, introduction to spreadsheets to elementary (and middle school, I believe) students

BarbaraTaf: looks like a great program AND it comes with a t-shirt?!

DavidWe: Well, you may have to bargain with the company (or me) for the t-shirt

DavidWe: I got it at the company's exhibit space at the NECC conference, but, I'll be at this year's NCTM meeting and I can take orders for more t-shirts

MaureenB: or go to a conference and win one

DavidWe smiles

DavidWe: Right

DavidWe: But, there is a lot of work behind the software as it was developed over a number of years at TERC (a very cool place) and then was sort of drifting into anonymity until the Inspiration people picked it up

MaureenB: At the tech conference in the Hudson Valley they are raffling off a Smart Board

DavidWe: They have good supporting materials

DavidWe: They have good downloadable workshop guides for doing prof. development with it

PatriciaCh: It looks like a interesting program.....students will be interested to use it...it looks easier than excel

MaureenB: have my fingers toes and eyes crossed

DavidWe: Go for it, Maureen!

DavidWe: Maureen, do you know about the Saturday math workshops at Bank Street?

PatriciaCh: Good luck on the SmartBoard!

DavidWe: It may be a bit of a drive for you, but they are often very good

DavidWe: In November they did a presentation (to a lot of NYC teachers) about Smart Boards

MaureenB: I will have to look into it. I can always go by train

DavidWe: Let me know and I can send you some information about it

DavidWe: Just so you will have it, here's my email address:

DavidWe: . o O (wex@pobox.com)

MaureenB: thanks

DavidWe: Sure thing - feel free to contact me

DavidWe: Are you folks using particular math curriculum where you teach? Barbara, Maureen?

MaureenB: I go down to the city to Columbia Teacher's College so that would be just as easy

MaureenB: Investigations

DavidWe: Patricia, would you be interested in saying a little bit about Robotics stuff in a few minutes?

DavidWe nods to Maureen

PatriciaCh: sure ...also I can talk about Future City as well

DavidWe: So, the same group of people (from TERC) developed Investigations - same place where the software that is now called Inspire Data was developed

DavidWe: There should be ALL sorts of connections between Investigations and Inspire Data, Maureen

DavidWe: Thanks, Patricia

MaureenB: nice and their new program fills in some of the gaps for the state assessment

DavidWe: Are you finding people having difficulty (parents, students, teachers) with Investigations, Maureen?

MaureenB: parents especially

DavidWe: I know some people find it very challenging and often parents feel that it looks NOTHING like what they remember about elementary school math

DavidWe nods

PatriciaCh: What is Investigations...I am not familiar with it.

BarbaraTaf: I'm not either

MaureenB: Hand on Math Problem solving

DavidWe: It's one of the more challenging and innovative K-6 curricula that was developed after the NCTM standards first came out in 1989

PatriciaCh: Where can we go for more information?

DavidWe: TERC actually hosts a big web site (more comprehensive than the publisher's web site) about it

DavidWe: <http://www.inspiration.com/productinfo/inspiredata/index.cfm>

MaureenB: Scott Foresman site too

DavidWe: That's a great supporting web site to start with

DavidWe: And, the curriculum is now published by Scott Foresman

PatriciaCh: Maureen ...you stated that you like this ..right?

DavidWe: Looks like there is a new forthcoming web site from Scott Foresman:

DavidWe: <http://scottforesman.com/tours/investigations/>

DavidWe: nice fractal

MaureenB: I do have to supplement right now but the new program seems to have filled in more of the gaps

DavidWe: They have augmented the curriculum several times

DavidWe: One of my friends, Claire Groden, was an early implementer of Investigations in the Boston area

DavidWe: It challenges a lot of elementary teachers with a lot of math - sometimes the teachers can feel uncomfortable

MaureenB: One of our part time teachers was a consultant for them so we had a lot of in house support

DavidWe: Often a fair amount of professional development can be very important

DavidWe: That's great, Maureen

PatriciaCh: I looked at the site...they do not have anything for middle school.

MaureenB: but not for the last 2 years

DavidWe: I think it ends with grade 6, Patricia - it was developed as an elementary curriculum

DavidWe: . o O (or maybe grade 5)

MaureenB: I think you are right David

DavidWe: can't recall

MaureenB: 6th

DavidWe: smiles

DavidWe: thanks

DavidWe: Patricia, do you want to say a bit about K-12 Robotics and what you do?

PatriciaCh: The website of the organization is www.usfirst.org

DavidWe: Are you a classroom teacher, Patricia?

PatriciaCh: Yes I am

PatriciaCh: The FIRST program extends from elementary to high school

DavidWe: How do you integrate Robotics into your classroom?

PatriciaCh: I use robotics in lessons on measurements....why it is important to be precise....

DavidWe: Is that something you are interested in Maureen, Barbara?

PatriciaCh: my school district is the county north of Palm Beach....and students learn through Robotics how math and science is integrated into the curriculum and their lives

DavidWe: Do you need to obtain equipment in order to do Robotics, Patricia?

PatriciaCh: it is easier for me...if questions are posed....I can talk about robotics forever

DavidWe: smiles

DavidWe will try to pose some useful questions

DavidWe: Will keep it a bit shorter than forever, if you don't mind

PatriciaCh: if you want to have a team...home machines are adequate...

DavidWe: You can mention that you also have a Robotics discussion here in Tapped In

DavidWe: The www.usfirst.org website has a good guide for how to start and how to proceed?

MaureenB: sounds like a great way to make measurement real and meaningful

PatriciaCh: yes.....if a school do not have machine resources....the VEX program is excellent then

PatriciaCh: you can make robots with very little equipment.

DavidWe: Have you done anything with LOGO (Lego-LOGO), Maureen?

BarbaraTaf: Definitely - my school has a technology class (which includes robotics) for upper grades (6-8) but it would be great to introduce in 5th

PatriciaCh: I work with both middle schoolers and high schoolers

MaureenB: no

BJB2: Pat is in Tapped In on the second and fourth Tuesday to answer questions about Robotics

DavidWe: How do you do the Robotics with younger kids, Patricia?

DavidWe: Any special considerations?

PatriciaCh: Thanks BJ....please log in then...I don't want to take too much time here

PatriciaCh: LEGOs is the way with younger students...elementary and middle school

DavidWe: Well, I just thought that since you were here, Patricia, you might want to say a little and Barbara and Maureen may have some questions

PatriciaCh: no problem....like I said ...I can talk about this forever

DavidWe smiles

DavidWe gives Patricia some chocolate

PatriciaCh: with younger kids....they love LEGOs....the students are given a mission

MaureenB or some coffee

DavidWe smiles

PatriciaCh: the students have to built a robot as well as program it to complete the mission

DavidWe: Do students get introduced to programming in 5th grade?

PatriciaCh: I will take a SMART BOARD if is available

DavidWe finds it more cumbersome to hand out Smart Boards than Hershey kisses

PatriciaCh: Students in 4th and up are using programming or learning program skills..

MaureenB . o O (wishes and wishes for a Smart Board)

DavidWe: cool

PatriciaCh: they use a simple C language type

DavidWe: Okay, okay, I'll get you a smart board!!

DavidWe . o O (uh-oh, what am I saying)

PatriciaCh: Thank you!

DavidWe: What would having a Smart Board help you with, Maureen?

DavidWe is interested

PatriciaCh: FIRST or robotics is a great way to show the connection to the kids

DavidWe nods to Patricia

DavidWe: The next K-12 Robotics discussion is next Tuesday, is that right?

PatriciaCh: Yes...it is....

DavidWe . o O (23 January 7-9pm EST/4-6pm PST)

PatriciaCh: I look forward to seeing some if not all of you there

DavidWe smiles

DavidWe: Are you aware of a lot of K-5 teachers being involved with FIRST Robotics, Patricia?

DavidWe: <http://www.usfirst.org/what/jfl/default.aspx?id=402>

PatriciaCh: The high school game has been posted....

DavidWe: That's the Junior First Lego League

PatriciaCh: yes....it is because of my high school involvement...I started working with elementary school now I have a team of my own

BarbaraTaf: I checked out the website link about FLL and it sounds like something my students would be into... I'll have to head over to the Robotics discussion on Tues.

DavidWe: In terms of other online resources for math ideas, does anyone have any particular favorite sites?

PatriciaCh: it is rewarding...but I must warn you.....it is addictive

MaureenB: have to check it out and see how it would fit in

DavidWe: Do you know about the National Library of Virtual Manipulatives?

PatriciaCh: no

DavidWe: small, topic-specific JAVA applets for teaching various math concepts

MaureenB . o O (oh no another addiction)

PatriciaCh: sorry Maureen...it is not the calorie kind

DavidWe: This is a great resource, well-categorized by grade level

DavidWe: and math concepts

DavidWe: Here's the web page:

PatriciaCh: what is the url?

DavidWe: <http://nlvm.usu.edu/en/nav/vlibrary.html>

MaureenB . o O (thinks my laptop is already attached to my lap)

DavidWe: It's based at Utah State University

DavidWe: You were mentioning Geometry, I think, Barbara, right?

DavidWe: applets that simulate things like GeoBoards, etc.

MaureenB: I will be starting that unit

DavidWe: Maybe you mentioned it, Maureen

DavidWe: Some really nice, very simple applets that allow students to manipulate the concepts

DavidWe: Helps if you can get everyone (or pairs of students) on a computer ...

DavidWe: but they also can simply be used as demonstration and teaching examples

DavidWe: . o O (especially if you have a Smart Board!)

MaureenB: I have been on the site but thanks for the reminder will add it to the lesson plans

DavidWe smiles

DavidWe: You're welcome

MaureenB now you are teasing me

MaureenB frowns

DavidWe apologizes

MaureenB laughs

DavidWe: Sorry...just thought if you HAD a Smart Board, you would be able to make EXCELLENT use of these things

DavidWe: NCTM has also developed some nice JAVA-based applets

DavidWe: Have you all seen the ILLUMINATIONS part of the NCTM web site?

MaureenB: I use a projector not as interactive but works in a pinch

DavidWe: Certainly does...even for me...since, I don't have a Smart Board, either

DavidWe grins

DavidWe: Here's the ACTIVITIES page of the ILLUMINATIONS web site:

DavidWe: <http://illuminations.nctm.org/ActivitySearch.aspx>

SusanR joined the room.

DavidWe: You can pick grade level activities...

DavidWe waves to Susan

DavidWe: Hi, Susan

SusanR: Hi David

BarbaraTaf: The MIND institute has a program we used for math in LAUSD - it's www.mindinstitute.net that helps students to visualize math concepts.

DavidWe: They also have over 500 lessons plans...

DavidWe smiles at Barbara

DavidWe: Barbara have you been working with the MIND institute folks?

DavidWe: I've gotten to know Andrew Coulson, the President of the education division a little - they have some very cool stuff

PatriciaCh: Sorry...I am checking out the different sites

DavidWe posts the URL for the lesson plans from Illuminations

DavidWe: <http://illuminations.nctm.org/Lessons.aspx>

DavidWe: No problem, Patricia, that's what we are here for

BarbaraTaf: not too much, I was teaching K at the time and the students weren't ready for it but other teaches swore by the JiJi Math programs

DavidWe: I think they have some very cool stuff:

DavidWe: Here's a web page with some of their math activities:

DavidWe: <http://www.mindinstitute.net/cont/edu/demos.php>

PatriciaCh: Thanks..

DavidWe: They also try to combine elementary math and music education

DavidWe: They are based in Orange County and have worked with schools in southern California

DavidWe: They are just beginning to expand - they've been working next in Texas - big states with big school populations

DavidWe: But, they are a non-profit organization and grew out of some very interesting research on the value of music to help people do math better

DavidWe: It's really quite interesting stuff

DavidWe: We've got a few minutes left. Are there any questions - any specific areas people want to know more about?

DavidWe: Remember, for you new Tapped In members, all the URLs and the text of the conversation will be in your transcripts

DavidWe: Transcripts typically show up in your email about 10 minutes after you logout

BarbaraTaf: No question here... I've rec'd some great resources - thanks to all!

PatriciaCh: Good night ...every one...see you next week

DavidWe: Is this time not inconvenient for you being in California, Barbara?

DavidWe: Thanks for joining us, Patricia. I appreciate you mentioning FIRST Robotics

BarbaraTaf: Yes, very convenient - Now I want a SMART BOARD too!

DavidWe smiles

DavidWe: We'll see if we can get a deal on a case of Smart Boards

PatriciaCh: no problem....thanks for the great links

DavidWe smiles

DavidWe: You're welcome, Patricia

PatriciaCh: yes...I will be happy

DavidWe: Patricia, do you know anyone looking at scores of students involved in Robotics?

DavidWe . o O (math/science - do they tend to be higher?)

BarbaraTaf: great!

PatriciaCh: no.....but most of our students are AP and IB students

DavidWe: Sure, that's at the top end of K-12 - I'm thinking in the middle or even younger students

PatriciaCh: in middle school....I encourage the lower quartile students to participate

DavidWe nods

DavidWe: Do you find that difficult? Do they feel as though they don't have much to contribute?

PatriciaCh: I feel that not everyone will test well

DavidWe: Well, that's certainly true

PatriciaCh: no.... all kids have great ideas.

DavidWe: Just didn't know if something like Robotics keeps more people interested in math and science

PatriciaCh: building a robot to play the game...it is problem solving....

DavidWe: yes

PatriciaCh: interest in robotics...is a stepping stone.....some of our students went on to studying engineering...etc...due to participation in robotics....especially girls.

DavidWe: One concern is that math and science teaching K-12 is not very strong so students either become bored or turned off - they are then less likely to consider studying math/science in college

DavidWe: Yes, I would think the hands-on nature of Robotics is very good for girls

PatriciaCh: I use to run GIRLS CAMP....it gave the ladies an edge...learning how to use the tools in the pit without the guys around

DavidWe smiles

PatriciaCh: yes...girls and guys do distract each other

DavidWe: People have tended to focus on middle school-age girls and ESPECIALLY supporting them in math and science - mentors, etc.

MaureenB: my thought was a club would be a good idea especially with the need of covering curriculum

DavidWe: My mother, grandmother and great-grandmother are all doctors - influence of role models

PatriciaCh: yes....it is really where we lose the girls....by 7th grade...good grades and smarts is a detriment to being cool

DavidWe: . o O (or popular)

DavidWe: smiles

DavidWe: Well, thanks again for joining us for the discussion, folks

DavidWe: I'm happy to hang out a few minutes longer and answer other questions if you have them

PatriciaCh: Thanks David

DavidWe: You're most welcome, Patricia

DavidWe: Patricia, if you want to be the guest speaker for one of my discussions, that would be fine

DavidWe: Bj is just asking me about this

PatriciaCh: Talk to everyone,..next week

BJB2: smiles...maybe David could be a guest speaker for Pat!

BarbaraTaf: Bye and thanks - will be back again next week

PatriciaCh: I will be most happy to speak.....

DavidWe: doesn't know how many people typically login for FIRST Robotics

DavidWe: Okay

MaureenB: looking forward to it

MaureenB: thanks David

DavidWe: Speaker exchange program, Bj?

DavidWe: You're welcome, Maureen

DavidWe: Good luck with the Smart Board

DavidWe waves to Barbara

DavidWe: Take care, Barbara, Maureen. Good luck with your teaching

PatriciaCh: let me know when you need me

DavidWe: Sure thing