Title of Session: K-20 Math Resources
Moderator: David Weksler
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Room: After School Online

BJB2: Welcome to the K-12 Math Resources discussion

KristenG: hello

BJB2: a couple reminders before we start

BJB2: if you are new to Tapped In, go to the ACTIONS menu in the top right of the chat screen and click on DETACH

AnneCS: I am from Guadalajara, Mexico

DavidWe . o O (Anne, you are in Mexico....neat!)

BJB2: if any urls are shown, hold down the ctrl key on your keyboard as you click on the hyperlink

DavidWe hopes BJ will encourage other folks to introduce themselves

BJB2: we usually start TI discussions with introductions

BJB2: please tell us where you are located, what you teach and what brings you to this discussion

GailH: I am Gail Hoskins, a former high school math teacher and K-12 coordinator, and for past 12 years the Outreach Coordinator for ENC (Eisenhower National Clearinghouse).

GailH: I live in Columbus OH, but it is like state # 6 or so in my life.

KristenG: I'm in Houston

KristenG: TX

MichelleS: University of Houston, PUMA program.....Kindergarten.....Technology in the Classroom Assignment

BJB2: I'm an art teacher in Pennsylvania and like to integrate math into the arts

EmilyW: I am Emily and I am in Dallas, TX. I am a web designer. I enjoy searching the web for educational resources to share with educators, especially Math ones.

AnneCS: I am a school principal from CA. My husband and I

DavidWe: I'm David Weksler. I began this journey with technology and math and science in 1992 when the National Science Foundation gave money to start what is now the Math Forum - www.mathforum.org

DavidWe . o O (I'm nominally in charge of this discussion, too)

SusanR: I am Sue from Ontario, Canada and K to 3+ Great Resources presenter here at TI

DavidWe looks around and wonders if Ihor would like to say something

DavidWe smiles

DavidWe . o O (he went for more coffee, I think)

DavidWe: Anyone else?

IhorC: Hi, I'm Ihor and I'm having technical (or is it mental) difficulties... This is a test

DavidWe: So...

DavidWe: Well done, Ihor!

IhorC: It looks like I got the first one right.

DavidWe: Thanks, by the way...want to quickly introduce yourself?

DavidWe nods

TomTab joined the room.

DavidWe wants to especially welcome Anne who seems to have "virtually" traveled the greatest distance (from Mexico) to join us

DavidWe: Hi, Tom. Welcome

DavidWe: We're just getting started. Would you quickly introduce yourself?

TomTab: hi

AnneCS: My husband and I have opened a Learning Center here in Mexico. I am particularly interested in working with children in K-3 .

IhorC: I'm located in White Plains, NY by way of Stevens tech in Hoboken, NJ. I dabble in math and technology in a bunch of schools in NJ.

DavidWe: Anne meet Susan, Susan, Anne

SusanR: Yes we have met.

DavidWe: Okay, let me try to form a little substance here...

SusanR: thro' email

TomTab: I teach mathematics a New Britain High School, Connecticut

DavidWe: Ihor, Gail (Gale) and I have been colleagues for at least 10 years...

DavidWe . o O (thanks, Tom)

DavidWe: ...and we've been involved in helping teachers learn how the Internet, computer software and new curriculum may help math education at all levels

AnhNguyetL joined the room.

KristenG: I will be a third grade teacher and in college by the way of math, was primarily only taught to use base ten blocks to teach elem. math

DavidWe: One thing that we've all done is travel to meet teachers at meetings around the country AND through Tapped In, teachers around the world.

DavidWe waves to Anh-Nguyet

TelfiaJ: I love base ten blocks

DavidWe: That's great, Kristen

DavidWe smiles

AnhNguyetL waves to David

KristenG: really

DavidWe: Since several of you all are student teachers (or will be)...maybe you can give us older folks a sense of what is going on in your classes or in the schools where you are observing/teaching

DavidWe: It helps us keep in touch with what is happening in education programs

KristenG: I have come to hate base ten blocks!!!

TelfiaJ: if you can regroup you must regroup and this is how we do it 10!

DavidWe: Okay, folks, thanks for the opinions on the base ten blocks

MichelleS: Thanks!!!!

DavidWe: Anything else of interest?

TelfiaJ: why kristen?

DavidWe smiles

AnneCS: Of particular interest to me is the student who for one reason or another does not have the readiness skills to be successful at his/her level.

KristenG: I have seen drill type wkst for multiplication facts

DavidWe: That's a very good question/issue, Anne.

DavidWe: Challenging to all of us, I'm sure

TelfiaJ: true, but they can be very beneficial if used properly

AnneCS: I found that to be the case in CA.

KristenG: yes, no doubt

DavidWe: One of the things that I would like to see happen in Tapped In and elsewhere is the "networking" of younger people (student teachers, new teachers) with older folks who have taught (Gail, Ihor) or who may teach in related disciplines (BJ mostly teaches art) and have that connection be helpful

DavidWe . o O (for all parties)

DavidWe: I think that is the case in many places, Anne

KristenG: that would be nice David

DavidWe nods to Kristen

AnneCS: Sounds great.

DavidWe: So, Kristen (or other Houston folks) what do you want to know from folks who have taught?

DavidWe tries to get the conversation going

MichelleS: how do you prepare your kids for state tests without boring them to death

DavidWe: Gail, if I may steal your line...Gail introduces herself at math conferences by telling people she has been a teacher in the 60s, 70s, 80s, and 90s. That impressed ME when I first heard it

AnneCS: A real problem if you want to teach.

DavidWe: So, I generally defer to Gail's experience when it comes to questions of classroom techniques and experiences

KristenG: how to connect everyday experiences to math, and how do u give students at a young age a passion for learning math. I think the 2 questions go hand in hand

DavidWe: Good question, Michelle

DavidWe tries to keep track of the issues as they are brought up

GailH: To first look at Michelle's question.

GailH: I think you prepare kids for tests by teaching them stuff they need to know but in ways that let them have multiple ways of doing it.

GailH: I think base ten blocks are great and knowing the algorithm is great... but

GailH: if I ask you what is 299 + 117 I hope that you'd think...

SusanR: use lots of hands on and manipulatives..teach the same thing using different techniques

DavidWe knows the answer and raises his hand

GailH: 299 is one less than 300 and 118 is one more than 117,

GailH: opps, messed up

DavidWe laughs

TelfiaJ: How do I reach students who have had bad past experiences with Math?

DavidWe: I didn't want to say anything, but...

GailH: 299 + 117 is same as 300 + 116.

KristenG: I do not think like that, but wish I would

DavidWe: Great question, Telfia!

SusanR . o O (math tricks)

GailH: It boils down to thinking and being MINDS -on.

DavidWe: Lots of WAYS of thinking Kristen...

DavidWe: And sometimes, HANDS-on, too...

DavidWe likes cuisenaire rods

KristenG: ohhh yes, they are coming to me slowly ...as I get older!

GailH: That's where I am going -- the need to do things multiple ways.

DavidWe agrees, as is customary, with Gail

GailH: That is something I have loved about Math Forum's problems of the week.

DavidWe smiles

MichelleS: I don't think like that either. I just like to write things down and double check it with subtraction

DavidWe bows

GailH: They (looking at past answers) always show so MANY ways to think.

DavidWe: Do folks from Houston (and others) know about the Math Forum and the Problems of the Week (POWs)?

MichelleS: no

KristenG: no

AnhNguyetL: No

KristenG: I have bookmarked math forum already though

TelfiaJ: no

DavidWe: http://mathforum.org/pow/

AnhNguyetL: got it

DavidWe: There is A TON of stuff at the Math Forum

DavidWe nods

TelfiaJ: thanks

KristenG: I struggle with math and I know there is an easier way to "think" about it, I was just not taught that way

DavidWe: There is an archive of the various problems of the week - a real resource that teachers can take advantage of for interesting problems

DavidWe appreciates Kristen's struggle

EmilyW: the pows are very interesting

GailH: Kristen, I think that is the attitude that can help your students.

TelfiaJ: I did too until I had Dr. Michael Connell for math methods he really helped me to grow

DavidWe: The stuff that challenges us is the stuff that makes us learn, I believe

GailH: We don't have to be "taught" it -- we need to learn ways of doing it together.

KristenG: yes, I believe so

TelfiaJ: I agree

DavidWe . o O (collaborative learning?)

DavidWe: Anne's question about students who aren't prepared for the class they are in is a daunting one, for me

GailH: Some of the best examples are sometimes approaches that use a single problem for an extended period and find all sorts of variations of it.

TelfiaJ: How do we motivate those students who have had negative experiences with math?

DavidWe: I was asked that by a experienced teaching in Philadelphia and didn't have an answer for her

DavidWe wonders how Telfia would motivate ANY student

EmilyW: What do you mean negative experiences?

KristenG: keep trying different approaches and integrating diff. subjects

DavidWe: It's probably a negative experience if you don't do well in a class (failing grade) - that can turn a student off

KristenG: math can be integrated EVERYWHERE

DavidWe smiles

DavidWe agrees with Kristen

KristenG: just like science

EmilyW never had that problem

DavidWe: NCTM has a link to middle school math and Shel Silverstein's poetry

AnneCS: David, this is the first time I've been able to reconnect with the group; so, I'm listening. Kristen, it takes time to rethink; but I've seen many teachers break through. You're getting some great advice today.

MichelleS: yeah....I did well in Math in High School, but struggled in College Algebra. I got discouraged enough to change from Middle School Math to EC-4

DavidWe is glad that Anne could connect up with this group, again

TelfiaJ: thanks a lot David

KristenG: yes! Anne

DavidWe left the room (signed off).

WexGst2: Sorry, folks...

MichelleS: so is this it?

DavidWe joined the room.

MichelleS: guess not

DavidWe has opinions about Windows machines

GaleH: WB, David.

DavidWe: Thanks, Gale

IhorC: sounds like David had a malfunction.

MichelleS: yeah

BJB2 hopes David will stick to the Math topic and not go on a tangent on Windows

DavidWe: My Mac self stayed online

DavidWe: tangent, who said TANGENT!

DavidWe smiles

DavidWe: Trig anyone?

BJB2 . o O (notice how I integrated math into that discussion?)

DavidWe appreciates ALL of BJ's "integrations"

DavidWe: Boy, even calculus!

MichelleS: Sounds like Pre-Cal and Cal

DavidWe: Those art teachers are very, very intelligent

DavidWe nods

DavidWe: Got that right, Michelle!

GailH: Can I show a primary lesson that we can talk about for a moment.

GailH: This is from the NCTM (math teacher organization site) and it has a java applet. I hope everyone can see it.

IhorC: I was curious about what subjects Tom teaches in Connecticut

DavidWe: So, I'm sorry, we lost a couple of folks, but did we try to answer Anne's questions about students without the background to be in the class they are currently in?

DavidWe: Please go ahead, Gail

GailH: http://illuminations.nctm.org/tools/tool_detail.aspx?id=3

MichelleS: I had a really good Pre-Cal and Cal teacher in High School...he taught my mom too. He worked with us until we got it.

DavidWe reminds folks to hold down the Control key and click on the URL if it doesn't come up by simply clicking on it

DavidWe smiles

DavidWe: That's great, Michelle

GailH: Can you see it OK?

DavidWe: Good teachers are to be prized

KristenG: that's cute, and helpful

DavidWe finds the web page

DavidWe remembers that MCI helped fund MarcoPolo initially

GailH: I want to address the questions about helping students who aren't motivated or who can't do what the grade level expects.

DavidWe listens to Gail

GailH: Who can actually see the clothes and move them? Speak up if you can.

DavidWe can

KristenG: I can

TelfiaJ: I can, cute

KristenG: how do u get the answer

AnneCS: Gail, I'm interested.

GailH: OK, do you see that you can move the clothes and dress the figure.

TelfiaJ: yes

DavidWe . o O (virtual manipulatives)

GailH: And for each colored shirt, there are 2 choices for bottoms.

KristenG: yes

GailH: OK -- now to get to the question we are talking about.

GailH: Notice that it has a customize button. Try it and pick more options and see what happens.

MichelleS: My computer was tripping out for a moment.

KristenG: adds more choices

EmilyW: I think instructions were confusing

DavidWe nods to Emily

KristenG: me too

EmilyW: but it was a really neat idea

DavidWe: It may need a bit more setup than Gail gave us...but it's an example...

GailH: Sorry about that.

DavidWe: No problem, Gail

IhorC: Cute applet!

GailH: Anyway, I think the ability to make a problem easier or more challenging is an important thing to have available.

DavidWe cautions all that anything NEW is always challenging to understand. To TEACH with it requires preparation, I believe

GailH: And, there is the issue with young children -- a good thing -- that this reinforces color name.

DavidWe smiles

MichelleS: That was cute

BJB2 . o O (and to depend on tech requires plan B as a back up)

DavidWe should read more of the text - is this pegged at a certain grade level?

KristenG: so do u guys think that in a couple of years the majority of students will have access to lap tops

GailH: And, we have to agree that the white that the character has on doesn't "count" as a choice.

DavidWe: BJ just made an EXCELLENT point

MichelleS: I like how it didn't let us use the same combination twice. Sometimes students forget what they have done and use things more than once.

DavidWe . o O (30,000 students in Maine got laptops a few years ago)

DavidWe . o O (all the 6th grade, I believe)

GailH: I agree with BJ's --- and i think this should START with paper manipulatives that children can hold and move around.

GailH: But the mathematics that this activity reaches is so big -- in discrete math.

AnneCS: Agree.

DavidWe wants to ask the Houston students how much exposure they have had to math software in their education classes

MichelleS: I thought that the white part was an option as well. Maybe the bear should be plain. If the students don't have access to computers you an easily create the same thing. It'll be like the paper dress up dolls.

KristenG: a school here will open in 2years and all of the students k-5 will have laptops

GailH: And what if I also added four different hats that could go with it.

MichelleS: what part of Houston is "here"?

TelfiaJ: or shoes...

KristenG: hisd

DavidWe: That's interesting, Kristen

GailH: I think that THAT is the point though. We learn together, and we help children and ourselves see the kinds of things that would mess them up on a test -- if the "answer" being right was what matters and that only.

SamtaN joined the room.

DavidWe waves to Samta

EmilyW: using as a paper is a good idea

MichelleS: sure

KristenG: it is interesting, I think!

DavidWe: Welcome, Samta. We're in the middle of the K-20 math resources discussion

DavidWe: Do any of you know of the software "Table Top" from TERC?

SamtaN: Hello all

TelfiaJ: hi

DavidWe knows Ihor has friends who use this

KristenG: no

SamtaN: sorry this is my first time here, did not mean to interrupt. Waiting for the 5 pm conference

IhorC: Now there's tabletop II

GaleH: Ihor has great resources on the CIESE site too.

DavidWe: It also uses virtual manipulatives and introduces powerful concepts, but with young kids I know that teachers who do training on the software ALWAYS recommend beginning the examples with hands-on materials BEFORE going to the software version

IhorC: I haven't seen it yet, but curious how they updated it.

DavidWe: That's no problem, Samta. Feel free to stay here

DavidWe nods to Ihor

SamtaN: Thank you I will just wait and kinda get used to the online environment:-)

DavidWe: I learned a lot about how it's very valuable for young children (K,1,2) to do things with paper, scissors, etc. and then repeat it with virtual manipulatives on the web or in software

DavidWe nods to Samta

IhorC: We don't much with activities for students below the 5th grade

DavidWe: I think many of us are still figuring out how all this technology works, works best and is educationally valuable

KristenG: yes David

DavidWe: It's really been the last 10 years that teachers have been offered the options of using technology beyond the calculator

DavidWe . o O (calculator use - another big issue, but not NOW))

DavidWe smiles

KristenG: now teachers have their own websites

DavidWe: Some places REQUIRE teachers to have websites...that can be a problem for some folks - it just becomes another thing to do

DavidWe tries to find a new web site (Emily showed me) that impressed me - a 7th grade teacher in Cincinnati

KristenG: I can imagine

EmilyW: I have it

EmilyW: hold on

DavidWe: Thanks, Emily

DavidWe: I have it, too, but I'm typing too fast

DavidWe: http://futureofmath.misterteacher.com/

DavidWe: There it is

DavidWe: I was really impressed with this

DavidWe: Why don't you folks take a look at it for a couple of minutes...I'll let you know, then, why I was impressed

EmilyW: (my connection was slow)

DavidWe thanks Emily for the original reference

DavidWe: HE's very interested in one of the current hot topics on the Internet: blogs

DavidWe: Here is a quote I really value:

DavidWe: Writing provides a unique window to the students' thoughts that simply cannot be had in any other form.

KristenG: nice

MichelleS: I like the Digital Images they showed...we had a similar assignment in my Math Methods class

TelfiaJ: I like the idea of digital portfolios

DavidWe: I heard a really eminent mathematician (Bill Thurston) talk to teachers at West Chester University in West Chester, PA

DavidWe . o O (digital portfolios are GREAT!)

DavidWe smiles

DavidWe: He explained that one of his frustrations teaching first year calculus at Berkeley was that he just didn't understand how the students were "constructing" their knowledge of calculus

SamtaN: I am still browsing through the plethora of materials and have already picked out things I can use in my classes to demonstrate the math behind the concept. Thanks. This is a great website:-)

DavidWe: He wanted to look inside their heads and see if they were "building" things in an "un-balanced" way

GailH: The reference to autobiographies reminds me of an assignment I gave my high school students the first day of class -- this was back in early 90's I suppose. Write a page titled "A Good Day in Math Class" -- tell what it would be like, etc.., It is amazing what I learned about my students in that one assignment.

DavidWe nods to Samta.

DavidWe: Glad that you like it, Samta

DavidWe: Wow, Gail!!

DavidWe: Great idea!

DavidWe KNEW that Gail is a very good teacher

EmilyW: Great Idea Gail

GailH: Those of you who are pre-service in particular, have you ever heard of Marilyn Burns -- she has books and professional development stuff, mostly K-8.

DavidWe: So, Bill Thurston realized that since he couldn't open up the students' heads and take a look inside...he would have them write journals to explain to him what they knew...that this explanation would hopefully give him, as the instructor, insight into where the students' thinking may wander off course

DavidWe thanks Gail for bringing Marilyn Burns up

KristenG: never heard of her

EmilyW enjoyed this but has to leave now, bye

DavidWe nods

DavidWe waves bye to Emily

KristenG: bye

GailH: I have heard her speak at NCTM conference to 1900 people who are spell bound. She has six and seven year olds explaining to her 'how they know" and it is amazing.

DavidWe smiles

DavidWe . o O (Kids Who Know and Can Do)

DavidWe checks the clock on the wall

EmilyW left the room (signed off).

DavidWe: It's the last ten minutes of our session. I wanted to see if anyone would like to make suggestions for topics or issues that might be helpful to discuss in future sessions

SamtaN: Thank you for letting me share the last part of this discussion:-))

DavidWe: Currently we have 2 discussions about math resources in Tapped In per month

DavidWe: Jeff Cooper usually leads this one (first Tuesday of the Month at 7pm, EDT) and talks about math resources

DavidWe: I've started another discussion (it will be in 2 weeks - 17 May, approx. same time) on math and technology specifically

DavidWe: Thanks for dropping in, Samta

DavidWe has never me anyone named Samta

KristenG: maybe a "what works for me" type chat about math

TelfiaJ: thanks all

DavidWe: Tell me more about what you mean, Kristen, please?

DavidWe nods to Telfia

IhorC: Hey, David how about fractions for 5/17? Middle school level...

DavidWe smiles

SamtaN: Thanks all I will probably be on the one that David talks about in the next two weeks ciao

DavidWe: We can do fractions, Ihor. That would be fine with me - 5/17 is a "nice" fraction, isn't it?

TelfiaJ: good idea Kristen

SamtaN left the room (signed off).

DavidWe hopes to hear more from Kristen about that idea

IhorC: I'm working on a variation of the illuminations fraction track and would be willing to share about it.

DavidWe: Great!

DavidWe: There's technology right out of the kitchen, folks!

DavidWe smiles

AnneCS: Just a note about writing. Had some problems in an eighth grade class. Went in to discuss with students. We went no where. After, one of the students came to me and suggested that I return to the class and ask the students to share their thoughts with me in writing. Sounds simple. I spent hours that night pouring over their thoughts. They had the solution to the problem.

KristenG: where experienced and inexperienced teachers meet up and discuss what types of ideas worked for them

IhorC: actually any fraction with a prime denominator is interesting.....

TelfiaJ: David, I think she means sharing techniques that work for us

GailH: 5/17 has both parts prime.

DavidWe: Does anyone know of the book by Joan Countryman, "Writing to Learn Mathematics"?

DavidWe smiles at Gail

TelfiaJ: No

GailH: I do, and I know her. She is on our Advisory Board.

DavidWe: Actually, Kristen, there's a section of the Math Forum called "Teacher to Teacher" that tries to do some of that. However...

IhorC: two primes in a fraction - even better

DavidWe: I would be happy to try to do that here as well

DavidWe smiles at Gail

DavidWe: Joan's book is published by Heinemann and is outstanding

DavidWe: Here's a web page from the publisher:

DavidWe: http://www.heinemann.com/shared/products/08329.asp

KristenG: I will check it out! thanks

GailH: Here is a snippet BY Joan.

DavidWe: Kristen, take a look at this:

GailH: http://www.enc.org/features/focus/archive/across/document.shtm?input=FOC-002775-index

DavidWe: http://www.mathforum.org/t2t/

DavidWe: That's the teacher to teacher service

DavidWe realizes it is time to shut up

GailH: Sorry -- two urls crossing in the wind there!

DavidWe smiles

DavidWe: Thanks, everyone, for joining in the discussion this evening.

KristenG: thank you, bye