

**Title of Session:** Math and Technology

**Moderator:** David Weksler

**Title of File:** 20070417mathedtech

**Date:** April 17, 2007

Room: Math Ed Tech Group

**DavidWe:** Welcome to the Math Education and Technology discussion

**DavidWe** . o O ( introductions, next, I think )

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

**DonnaTr:** I am currently student teaching in a second grade, self-contained classroom in Houston, TX

**BjB:** please let David know where you are located and what you teach or hope to teach

**LyviaG:** Hi I am a student teacher and hope to teach 1st grade

**LizethE:** I am a student teacher from the University of Houston currently teaching in a I am a student teacher from the University of Houston currently teaching in a multi-age (K-1) classroom

**JessicaJ:** I am teaching in a math/science open concept classroom

**JoshCo:** I'm a K-8 technology teacher in MA

**NicoleC:** I am a student teacher in Houston, TX in a Kindergarten classroom

**HenryMo:** I'm student teaching in Houston, 6th 7th and 8th grade math

**JessicaJ:** second grade

**JaneKN:** I am student teaching in a second grade too, from University of Houston, TX

**YudithV:** Hello all, I am also from UH and wish to teach Kinder

**KristyA:** I am teaching pre-k 3 year olds and I am a student teacher

**LyviaG:** Looks like there are a lot of students form UH

**PriscillV:** I am student teaching in a 4th grade classroom in Houston, TX.

**TiffaniW:** I am also a student at University of Houston.

**DavidWe:** I'm David Weksler. I'm in New Jersey, close to New York City where I was born. I help teachers learn more about educational technology especially for mathematics

**DianaFZ:** I am student teaching at Texas A&M Kingsville

**PriscillV:** I am also a student at the University of Houston

**DavidWe** thinks the entire undergraduate class of pre-service teachers from the University of Houston is here

**DavidWe:** Okay, so, some of you U of H folks were here last month when I was in Atlanta and we decided that we would focus on elementary math for this discussion

**DavidWe:** I hope that is okay with most of you

**DavidWe:** So, I'm less knowledgeable about elem. stuff but I have friends....

**DavidWe:** Claire Groden is an elementary math specialist in the Newton, Massachusetts schools and she gave me some of her favorite resources

**DavidWe:** First, I want to just ask if everyone knows about the Math Forum (where I got my start in this field)

**DavidWe:** The Math Forum is a BIG web site for math K-20

**DavidWe:** [www.mathforum.org](http://www.mathforum.org)

**DavidWe:** Some of you may have heard about Ask Dr. Math - [www.mathforum.org/dr.math](http://www.mathforum.org/dr.math)

**DavidWe:** Kids can send a question to "Ask Dr. Math"

**NancyHa:** It is a great tool for elementary students

**DianaFZ:** this is to help kids to do their homework

**DavidWe:** There is a database of questions ("what's a number bigger than infinity") that lots of kids ask over and over

**JaneKN:** I didn't know about this website

**DavidWe:** It's not a real-time answer service, but take a quick look at the elementary section

**DonnaTr:** so Dr. Math is for students?

**JessicaJ:** I think there is so much out there that it is overwhelming and you don't know where to start

**NicoleC:** This would be great for my students because most of the time the parents can't help them

**DavidWe:** <http://www.mathforum.org/library/drmath/drmath.elem.html>

**JaneKN:** so this would be a great homework helper

**DonnaTr:** what other ways is there to integrate technology and math right in the classroom?

**DavidWe:** Questions are organized by topics - the section is searchable - and exceptional answers have a red star to signal them to your attention

**DonnaTr:** not just via the internet

**DavidWe:** Oh, there are lots of ways, Donna...

**DianaFZ:** what kind of ways

**DavidWe:** But, what is often important, especially for young students, is to use REAL manipulatives as well

**DonnaTr:** besides using powerpoint.

**DavidWe:** Cuisenaire rods are still my favorite!

**DavidWe:** But, there are virtual manipulatives as well

**JessicaJ:** I think the manipulatives are key to learning different concepts

**DavidWe:** I know I mentioned this to the folks who were here last month...the National Library of Virtual Manipulatives, but let me show everyone the web site, again

**DonnaTr:** oh yea. I've explored one of those websites..but it wasn't really kid friendly. no instructions

**JenniferH3:** I agree.. It's amazing to see students who struggle catch on so quickly once manipulatives are put in the picture

**DavidWe:** The computer can re-enforce the hands-on materials

**DavidWe:** Different modes of experiencing the concepts

**DavidWe:** Take a quick look:

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

**DavidWe:** So, I'm guessing most of you have read something about Piaget, right?

**DavidWe:** What happens around age 7?

**JenniferH3:** is that the concrete stage?

**TiffaniW:** yes

**DavidWe:** tall glass filled with water has more/less/the same as short, wide glass filled with the same amount of water

**JaneKN:** I think so

**JaneKN:** conservative

**DavidWe:** Anyone know what that understanding is called?

**DonnaTr:** conservation

**YudithV:** understanding of conservation

**NicoleC:** conservation

**DavidWe:** yes

**JaneKN:** right conservation

**DavidWe:** "Concrete Operations"

**DavidWe:**

[http://en.wikipedia.org/wiki/Theory\\_of\\_cognitive\\_development#Concrete\\_operational\\_age](http://en.wikipedia.org/wiki/Theory_of_cognitive_development#Concrete_operational_age)

**DavidWe:** just mentioning it

**DavidWe:** So, let me point out some resources my friend Claire Groden shared with me

**DonnaTr:** I'm not fully understanding what this chat is about..

**DavidWe:** Probably easier with two containers - one tall and thin, one short and wide

**DonnaTr:** I thought it was to get ideas for technology in the classroom..

**DianaFZ:** me neither

**KarahH:** What is the chat about?

**DavidWe:** Math education at its heart

**DavidWe:** So, have any of you seen Rain Forests Maths?

**DonnaTr:** sounds interesting.

**NancyHa:** Sorry to ask, but what do k -3 know about conservation?

**KarahH:** Ok, to teach math to younger students don't you start of with concrete examples.

**DavidWe:** Here's the web site

**DavidWe:** Take a look:

**DavidWe:** <http://www.rainforestmaths.com/>

**DavidWe:** Take a few minutes to poke around

**DavidWe:** Feel free to ask questions/make comments, too

**LyviaG:** wow! I like the rainforest site

**DavidWe:** Yes, it is quite good

**NancyHa:** Yes, younger students need the concrete to connect to abstract - but you have to be ready for the abstract!

**LizethE:** such a cool site!

**JessicaJ:** What a great resource to have!

**DonnaTr:** oh wow.

**DonnaTr:** they show you how many activities are available for each grade level

**LizethE:** they can explore so many concepts

**JenniferH3:** oh my gosh.. that is so neat!!

**JenniferH3:** it categorizes grades and everything...

**DonnaTr:** oh how colorful and inviting.

**DonnaTr:** I like this one...good call David!

**HenryMo:** good stuff

**LyviaG:** This is the best math site I have seen

**JenniferH3:** I just did a lesson on area to and I think the kids would have loved doing this.. thanks!

**JaneKN:** I am teaching pattern to my second graders this week

**TiffaniW:** looks like a great website

**LyviaG:** I was thinking the kids just took the Math TEKS and this would have helped review

**NicoleC:** Looks good

**JaneKN:** I am checking out some pattern activity for this grade, It's neat

**DonnaTr:** any other great sites like this you can share with us?

**YudithV:** So do you suggest to use this as an introduction to a lesson, or a re-enforcer?

**DavidWe:** I think it's a resource, Yudith

**DavidWe:** I don't work with elementary students that much

**DavidWe:** So, I am not that familiar with what is there

**JenniferH3:** well I think they would love this though

**YudithV:** It will also be great to use it as a center..

**LyviaG:** What age group do you work with?

**DavidWe:** But, it is very popular (I know that much) with elementary teachers that I've spoken to

**DonnaTr:** something to have available during center time

**DonnaTr:** for extra practice

**DonnaTr:** with concepts

**DavidWe:** I mostly work with teachers - helping them learn more about using technology (things like Tapped In, software, etc.) for math education

**DavidWe:** I think you all can start to think about HOW you would use the materials on the Rain Forest Maths web site

**JessicaJ:** SO what are some things we can do with technology in the classroom except with websites

**JessicaJ:** Are there any other resources?

**KristyA:** reading has hooked on phonics.... what's the hooked on phonics for math ?

**DonnaTr:** good question Kristy

**KristyA:** to help struggling students

**JaneKN:** I think I would use the activities of this Rain Forest Maths site for independent practice in my lesson cycle

**DavidWe:** Well, I think there are a lot of things dealing with numeracy

**DavidWe:** Let me show you the next source of elem. math resources my friend Claire told me about

**JenniferH3:** it could be guided if you showed them also

**DonnaTr:** please do!

**DavidWe:** These are published materials - Creative Publications - but Claire thinks they are VERY good:

**DavidWe:**

<https://www.creativepublications.com/productfamily.html?PHPSESSID=e7cc340e467c0e0887bb16c70b3ef72e&familyid=80>

**DianaFZ:** ok

**DonnaTr:** I would still let it be in centers...it's hard to schedule computer lab time to have enough computers available for all students at the same time

**DavidWe** . o O ( that means they cost money )

**JaneKN:** it s ok

**DavidWe:** Right, so you need alternatives if you have to schedule computer lab time

**LizethE:** exactly....especially when you have a multi age classroom like mine

**DonnaTr:** yea multi age and multi computer skills

**DavidWe:** So, one of the reasons for this discussion and for Tapped In is teachers learning from each other

**KarahH:** Some of the programs on that website are high.

**DonnaTr:** more great sites!

**DavidWe:** The text series from Creative Publications is called "Groundworks"

**DonnaTr:** do you have any other sites to share with us David?

**DavidWe:** Yes, Donna, there are a few more

**DonnaTr:** or any ways you think we can expand on the use of powerpoint, or MS Word to integrate with math?

**LyviaG:** So this is your job or do you volunteer?

**DavidWe:** I'm indebted to Mary Thompson at U of H for encouraging many of you to login to Tapped In

**KristyA:** word sounds hard to integrate with math

**DavidWe:** I work with teachers in schools

**DavidWe:** I do this as a volunteer

**DavidWe:** Plus, it lets me meet all you college students

**DonnaTr:** yea, Kristy..that's why I'm curious to hear suggestions

**DonnaTr:** or ideas

**JenniferH3:** I think this is a really neat tool.. I had never heard about this till cuin 3113

**DavidWe:** Bj, Jeff and I are all HelpDesk volunteers - we enjoy the interactions and we think teachers often learn best from other teachers



**NicoleC:** Me too.

**PriscillV:** not until now, is when I heard of this site

**JaneKN:** I think so too

**TiffaniW:** so, how can we integrate power point and MS word?

**DavidWe:** Also, when you all get out in the real world it will be "scary" and you should know you have a virtual family of colleagues here in Tapped in

**YudithV:** I personally like Tapped In

**JenniferH3:** haha yes that is true

**KristyA:** ok... about math

**DavidWe:** That's the point, I think, (or one of them) for Mary Thompson getting you all familiar with Tapped In

**DianaFZ:** I think so too

**DavidWe:** well, there it is

**PriscillV:** We should have been informed of this site a lot sooner

**DavidWe:** So, any of you come across the name Kathy Richardson?

**DavidWe:** Neither had I until yesterday when Claire told me that she has GREAT materials

**NicoleC:** who is she?

**DavidWe:** I've not done anything but go to the web site and read a little bit about her, so I can't tell you too much

**JaneKN:** ok

**DavidWe:** Here's the web site:

**DavidWe:** <http://www.mathperspectives.com/>

**DavidWe:** Again, take a few minutes to look around

**DavidWe:** But, I recommend that to you with a great deal of confidence

**DavidWe:** My friend, Claire Groden, is a wonderful teacher and also a very good teacher of teachers - I've worked with her

**DonnaTr:** so this is a teacher oriented site

**DavidWe:** I believe so

**LyviaG:** Looks like lots of teacher resources cost money

**DavidWe:** Well, that may be true, but increasingly there are some freebies available.

**DonnaTr:** I'm sure the school will gladly pay for it if it benefits the students

**DavidWe:** If I can arrange it with Claire I can see about her joining me in talking about some of these resources

**DavidWe:** I wanted mostly to give you some starting points for further explorations

**SuemyraR:** that would be great

**LyviaG:** that would be great

**JessicaJ:** that would be awesome

**NicoleC:** Sounds wonderful!

**DavidWe:** How many of you were here last month when we hatched this idea to focus on elementary level math?

**KarahH:** If one of us were to buy the programs, could we use them in class or not?

**DavidWe:** The question is, if I set it up with Claire to be here so we can explore this in greater depth, would you all be available and willing to login?

**LyviaG:** yes, let me know when

**DavidWe:** I just figure it is getting towards the end of the semester for many of you

**DavidWe:** My next discussion isn't scheduled until May, but we could do something sooner, if there was interest

**DonnaTr:** but the beginning of our profession

**LizethE:** absolutely

**DavidWe** smiles at Donna

**KarahH:** yes it is but talking to people about math is what helps me in the long run

**JenniferH3:** yup

**JenniferH3:** I love math

**JaneKN:** me too

**NicoleC:** I love math too.

**DavidWe** smiles

**PriscillV:** I will be using this site for more info.

**DavidWe:** That's good to hear

**DavidWe:** Okay, next one...

**JessicaJ:** I like math but I never knew how hard it was to break everything down for second graders

**DavidWe:** Again, this is a commercial site, so I'm not sure how much is available for free, but Claire recommended it

**DavidWe:** That's a trick, Jessica

**DavidWe:** Finding ways to communicate the concepts

**KarahH:** Breaking is down is the fun part the challenging part

**DavidWe:** Are any of you student teaching presently and using a particular curriculum?

**PriscillV:** next week I will teach algebra to 4th graders

**DavidWe** agrees with Karah

**JenniferH3:** we use everyday math

**DavidWe:** Okay

**DianaFZ:** in everything

**DavidWe:** What "algebra" will you teach them, Priscilla?

**DonnaTr:** spiral math

**DavidWe** nods to Diana

**DonnaTr**: ring a bell?

**YudithV**: Jenn, we use that program too, I love it..

**SuemyraR**: we have been reviewing and reviewing for the math taks test in 4th

**DavidWe**: So, this site is especially focused on numeracy:

**DavidWe**: [http://www.origomath.com/index.php?page\\_id=145](http://www.origomath.com/index.php?page_id=145)

**YudithV**: I like to do the Math Boxes everyday..

**JaneKN**: neat

**DavidWe** smiles

**KarahH**: Do all of you have a TAKS test in your state?

**DonnaTr**: yes

**JaneKN**: sure

**DonnaTr**: this week is testing

**DavidWe**: Explain TAKS for people not in Texas, Karah, please?

**TiffaniW**: TAKS is a Texas test

**JessicaJ**: yes but not in second grade math that I teach

**NicoleC**: Yes

**DavidWe** smiles

**DonnaTr**: Texas assessment of knowledge and skills

**DavidWe**: Thanks

**NicoleC**: today

**JaneKN**: yeah

**DavidWe** believes that, too

**KarahH:** Do you agree with teaching toured the TAKS or teaching so the students understand the equations?

**DavidWe:** Has there been a lot of test prep with students that you work with?

**NicoleC:** today was the big math test for my third graders

**KarahH:** That is becoming a big problem in today's world

**JessicaJ:** I think it hinders their learning....A teacher can't go beyond the concepts on the test

**JenniferH3:** yes it is.. I have fourth grade and those poor kids are completely drained of practice worksheets... its so bla

**SuemyraR:** with my students it has been strategy strategy

**DavidWe:** Well, I can give you my opinion, but schools sometimes put a lot of effort into teaching so students will perform well on standardized tests - they feel pressure to do this

**NicoleC:** the preparation is all math TAKS packets that get really boring

**DonnaTr:** I think it's up to the teacher...w/s aren't mandatory

**DonnaTr:** neither is drill in kill to get concepts across or practice

**DonnaTr:** for the taks

**SuemyraR:** my teacher has a great one called RUMORS - is anyone familiar with it

**DavidWe:** yes, I DO think it gets boring - I don't think it is ULTIMATELY what education is about, but...

**PriscillV:** David, Algebraic Linear Equations

**DavidWe:** And how will you introduce that topic, Priscilla?

**DavidWe** . o O ( sophisticated topic for 4th graders, right? )

**DavidWe:** Feel free to share that one, Suemyra

**SuemyraR:** acronym for Read the problem, underline the question, mark out extra info, operation choice, reread the problem, and solve and check if your answer makes sense

**PriscillV:** I just got the information about 2 hrs ago to review. so I am not to sure

**LizethE:** Rumors...math strategy right? can you explain it b/c I forgot what it stands for

**DavidWe:** so a learning strategy, right?

**SuemyraR:** it's a strategy we require my students to do in problem solving

**JaneKN:** It sounds like a problem solving strategy

**HenryMo:** neat! I've never heard rumor

**SuemyraR:** I think it really helps the kids

**DavidWe:** Can you say a bit more about it, Suemyra?

**JaneKN:** I am sure it would

**PriscillV:** please tell more

**SuemyraR:** well its one that my teacher uses - and it really helps with word problems or basically any math question

**JaneKN:** I think my teacher is using the same strategy but I am not sure if it is rumors

**JessicaJ:** we so an SQ, RQ, CQ, HQ method. Sq you underline the question and circle the main idea, RQ means you circle the details, CQ show your steps and solve the problem and HQ explain how

**SuemyraR:** it just trains the student to be more careful instead of just running through a problem - the steps break it down

**DavidWe:** So, it's a acronym for a problem-solving strategy

**DavidWe:** Gives students a mental list for how to approach a word problem, especially

**SuemyraR:** yes it's an acronym and we have the students use it for every problem they do

**DavidWe:** What age students, Suemyra?

**DavidWe:** . o O ( are you working with )

**SuemyraR:** I am with 4th grade

**KarahH:** It can be used by all ages right?

**LizethE:** I know 3rd graders used it in Katy

**DavidWe:** Don't see why not

**DavidWe:** So, do any of you try to integrate math with any other topics?

**SuemyraR:** yeah I think it could easily be used in third as well

**JaneKN:** I am sure it helps with all ages

**LizethE:** Math and reading

**DavidWe:** okay...

**SuemyraR:** yeah I would say math and reading

**TiffaniW:** math and science

**TiffaniW:** math and art

**YudithV:** well, I've heard starfall.com is a pretty good website

**LyviaG:** math and social studies

**JessicaJ:** math and science

**KarahH:** math and finances

**LizethE:** Our kinders and 1st graders are doing an author study and they voted on an author....then we made a graph based on the amount of votes....since we were working on graphs all week

**JaneKN:** Thanks David for great information

**JaneKN:** bye

**HenryMo:** math and science integrate nicely

**DonnaTr:** what does rumors stand for?

**SuemyraR:** Read problem , Underline the Question, Mark out any extra info, Operation choice (add subtract mult or divide), Reread the problem, and Solve and check if it makes sense

**NancyHa:** I love to combine math and art

**HenryMo:** Yay math and art, tessellations?

**NancyHa:** tessellations too

**DavidWe:** yes, tessellations

**DavidWe:** They are really quite easy to do...what's an example of a tessellations many of us see all the time?

**NicoleC:** now I get it

**DavidWe** smiles

**DonnaTr:** honeycomb?

**DavidWe** . o O ( bathroom floor tiles? )

**SuemyraR:** oh tiles

**HenryMo:** there we go, couldn't think of one

**DavidWe:** Anyway you can divide up (tile) the plane in a regular way

**DavidWe:** Most of you are familiar with the Dutch artist M. C. Escher?

**SuemyraR:** yes

**DianaFZ:** a little bit

**LizethE:** so what happened to technology?

**SuemyraR:** the never ending stair cases

**DavidWe** smiles

**KristyA:** wondering the same

**DavidWe:** yes, Suemyra

**DavidWe:** Well, there's a cool piece of software, Tesselmania

**DavidWe:** I think it is still available

**KarahH:** What is it?

**SuemyraR:** oh that sounds fun



**DavidWe:** Allows you to generate some pretty cool tessellations

**NancyHa:** love the staircases

**DianaFZ:** haha yes sounds fun

**TiffaniW:** I'll have to check that out

**NancyHa:** But the students can make their own tessellations

**KarahH:** there is a game boy that will let you tessellate 4 or 5 different shapes

**DavidWe:** <http://www.worldvillage.com/wv/gamezone/html/reviews/tess.htm>

**DavidWe:** take a look at that - you may be able to download a free demo version

**DavidWe:** Okay, so, we have about 6 minutes left...

**DavidWe:** Has this been helpful to you?

**NicoleC:** I made one of these in Geometry

**DavidWe** smiles

**DianaFZ:** yes a lot

**SuemyraR:** yes

**DonnaTr:** I wish we focused more on things we could do in class

**DavidWe:** Yes, you can use the Geometer's Sketchpad to do tessellations as well

**DonnaTr:** but the sites have been amazing

**JenniferH3:** yeah.. Thanks for all of the great information you gave us

**TiffaniW:** lots of great sites are always helpful

**DavidWe:** Well, Donna, I understand why you say that

**JenniferH3:** I love the rainforest site so much!!!!

**DavidWe:** I wanted to just throw some things out for you

**LyviaG:** It has been very helpful, thanks for the great websites

**DianaFZ:** the sites are wonderful

**DavidWe:** some things may be immediately applicable - some may give you some ideas

**KarahH:** The site was great

**DavidWe:** Glad to hear that, folks

**HenryMo:** very helpful, thanks!

**PriscillV:** thanks for the sites

**DavidWe:** The Math Forum - [www.mathforum.org](http://www.mathforum.org) - again is a HUGE web site with many, many resources

**NicoleC:** The sites are great. Thanks for helping us Elementary folks out!

**DianaFZ:** Thanks for everything

**NancyHa:** Don't forget - anything you see on a website can be made in a classroom

**DavidWe:** Things for teachers, students...some are teacher materials...some are resources for thinking about teaching concepts

**JessicaJ:** Thanks for the websites...they will be a great resource to keep

**Donna Tr:** thanks!

**BjB:** the next Math and Technology discussion will be on May 15

**DavidWe:** YOU have to do a little bit of filtering with respect to what is useful for you and YOUR students

**SuemyraR:** yes - understood

**NicoleC:** Always

**DavidWe:** If you have questions in the mean time, feel free to email me - [wex@pobox.com](mailto:wex@pobox.com)

**DavidWe:** I'm happy to help track things down for you

**SuemyraR:** thank you

**BjB:** or join this group

**BjB** : and then post to the discussion board

**DavidWe**: Good luck to all of you teaching at the moment

**NicoleC**: For sure. Thanks again and Good Night.

**BjB** . o O ( then you have a whole group to help )

**DavidWe**: You can join the MathEdTech group (as Bj mentioned) and we have a discussion board

**DonnaTr**: night all.

**DavidWe**: We had to teach them how to use the computer and the Internet first...then the math stuff came later

**HenryMo**: back when floppies where floppy

**DavidWe** was a chemistry major

**DianaFZ**: bye

**DavidWe**: Yes, Henry, exactly!

**DavidWe** waves bye

**YudithV**: hahaha

**KarahH**: ok, thanks

**DavidWe**: Things have changed A LOT in the past 10 years

**DavidWe**: but, people are still struggling with INTEGRATING all this technology into teaching

**DavidWe** . o O ( all subjects )

**DavidWe**: Thanks, again, folks for joining us