

**Title of Session:** Math Resources K-20+

**Moderator:** Jeff Cooper

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Room: Math Resources K-20 Group

**BJB2:** Welcome to this month's Math Resources discussion...

**BJB2:** We usually start all Tapped In events with introductions

**BJB2:** please share where you are located and what brings you to the math resources discussion

**BJB2** . o O ( the discussion leader should be here shortly )

**DanielleR:** I teach high school math in Va plus this is grad school assignment

**AmyNT:** I am Amy. I am in Va and I am here because of my technology class assignment

**AdrienneS:** I am Texas A&M University-Kingsville and I am required to attend some of these sessions to get the idea behind tapped in and hopefully learn something new

**JenniferAr:** I am in Falfurrias Texas and I am taking a computer class in Kingsville

**NicoleCM:** I'm Nicole from San Diego. I teach fourth grade, mostly math and science. I am also in a technology class.

**BJB2** smiles...I've been a member of Tapped In for almost 10 years and I still learn something new from every session I attend!

**BJB2:** I teach remedial communication in Pennsylvania

**RyanH:** I'm Ryan, I live in Milwaukee, Wisconsin home of the Brewers. Oh Yes! I teach 4th grade and currently working on a second master's in Admin. Very fun!

**NicoleCM:** What IS remedial communication?

**JeffC** joined the room.

**JeffC** waves

**JeffC:** Sorry I'm late... quite a turn out.

**RolandoM:** I am an undergraduate student at Texas A&M Kingsville. I am in a computer class that requires me to join some TI discussions.

**BJB2:** remedial communication is teaching students how to let others know what they are thinking and how to problem solve in a positive and constructive way

**AmygraceE:** I am a special education teacher in Virginia, teaching mostly algebra and a few other math courses in between

**BJB2** sighs with relief...Hi, Jeff!

**AdrienneS:** I didn't even know that existed

**BJB2:** you have a great group here, Jeff

**NicoleCM:** That's interesting, BJB. What age are your students?

**JenniferAr:** that must be a very interesting job bj

**BJB2:** 11-18...they're court adjudicated juvenile males

**AdrienneS:** oh wow

**JenniferAr:** got the picture

**JeffC:** I know most of you are from Texas... how many are math teachers?

**AmyNT:** very interesting

**AdrienneS:** how long have you been doing that BJ?

**NicoleCM:** So stickers aren't really a good incentive, then.

**AmygraceE:** haha

**AmyNT:** I have been teaching math for 6 years in Va

**BJB2** chuckles. I'm going into my 24th year.

**RyanH:** I teach math (4th grade) tough stuff.

**BJB2** listens while everyone answers Jeff's question

**JenniferAr:** hoping to do pre-k one day

**AmygraceE:** I'm math

**JeffC** wants a math teacher and a non-math teacher to come up with a ratio of math teachers to Texas teachers here today.

**AdrienneS:** Ryan, do you guys have a standardized test that students have to take?

**JeffC:** and then figure out how long it will take all of them to get to Cleveland at 55mph while a plane flies west at 500mph.

**BJB2** laughs...that's old math, Jeff!

**RyanH:** yes, Adrienne, we call it WKC E

**RyanH:** WKCE

**BJB2:** new math puts the kids on the plane and let's them figure it out

**AdrienneS:** ours is called the TAKS

**BJB2** . o O ( while they fly the plane ;- )

**JeffC:** well... it's a trick question from TAKS... nobody drives 55.

**NicoleCM:** I hear you Texans have been having some treacherous weather, lately.

**AdrienneS:** haha

**AdrienneS:** YES!

**AdrienneS:** it's been extremely rainy

**JeffC:** OK... welcome to Math Resources.

**AdrienneS:** and it NEVER rains during the summer in south Texas

**RyanH:** Wisconsin Knowledge and Concepts Exam (WKCE) What does TAKS stand for?

**JeffC:** We have a few, uh, \*resources\* here, most notably in terms of links in the room.

**NicoleCM:** Sorry...Jeff. I am focusing on math.

**NicoleCM:** Here we go!

**JeffC:** However, the real resource here are the members of this group, or at least this \*should\* be the main resource.

**AdrienneS:** Texas Assessment of Knowledge and Skills

**JeffC:** I'd like to call it an "untapped tapped in resource suffering from inertia."

**RyanH:** thanks

**JeffC:** Any and all members of this group may post here... and I encourage all math and K-6 teachers to join this group.

**NicoleCM:** How many of you educators let your kids use calculators?

**JeffC:** Once you're a member, you may post to Discussion, which acts as a mini-listserv and will be forwarded to all the members of the group. There are over 200 members.

**JeffC:** Indeed, there is a "calculators" thread in Discussion.

**NicoleCM:** I teach fourth grade and I rarely let mine.

**AdrienneS:** I don't remember using a calculator in 4th grade

**JeffC:** If you have not yet joined this group, and would like to do so, please scroll down the top frame (or get back to the main tapped in window if you have detached your chat), and click the little "i" in the green circle next to the link for this group in the "Welcome to Math Resources K-20+" box.

**JeffC:** then click the link to "join this group."

**BJB2:** the discussion boards serve as a means to communicate with ALL the members of this group as well as a way to access the archived posts

**JeffC:** Tapped In is a professional educator's collaborative. With over 200 members of this group, you may accomplish quite a bit, but if and only if you are (and the other members) remain active.

**BJB2** . o O ( rich resource, as Jeff mentioned )

**JeffC:** You may be taking this session as a box to check off for an assignment for your Masters.

**JeffC:** I would like to encourage you to stick with this place long after your coursework is complete.

**RyanH:** I also teach 4th, and don't let them use a calc. unless we are using huge numbers to figure out percents (people in Russia that are boys) something like that, otherwise, never.

**JeffC:** Nowhere else are you going to find a place where you may collaborate with peers, share lessons, ask for help (and get it both real time and asynchronous), for Math and just about any other subject or grade level.

**RyanH:** To me it's a calculator is an enabler

**NicoleCM:** It's interesting to me how there is a speedy jump in middle school where many teachers allow calculators.

**AdrienneS:** they should be able to the basic things in their head and not depend on a electronic device...

**RyanH:** rephrase "a calc. is an enabler"

**JeffC:** Questions/comments so far? If you would really like to get into a calculator discussion, we could spend the remaining 45 minutes on it, but my point would be for you to post to Discussion about it, and include all the members of the group.

**RyanH:** that's right Adrienne!!!!!!!!!!

**NicoleCM:** Adrienne. I agree. However, new text books actually have a calculator section to them!

**AdrienneS:** Ok what do you have for us Jeff?

**JeffC:** Well... for starters... instructions and reasons why you should join this group.

**JeffC:** I'm looking for the Calculator thread and will feature it.

**NicoleCM:** Jeff...I'm not quite sure what you mean by include all members. Aren't we all in the same room? Please explain. I am a first time user.

**JeffC:** There are over 200 members of this group.

**JeffC:** Most aren't logged in at the moment.

**NicoleCM:** Oh.

**JeffC:** When you post to Discussion here, the message forwards via email to all members.

**AdrienneS:** oh cool

**JenniferAr:** got it

**AdrienneS:** so you get everyone's opinion

**NicoleCM:** Interesting!

**RyanH:** scary!

**JeffC:** Well... you may continue the dialogue and see what others have written.

**JeffC:** Again, scroll down the top frame of the main window.

**JeffC:** Click the little "i" in the green circle in the Welcome box next to the link for this group.

**JeffC:** then click the link to "join this group."

**JenniferAr:** then what's next

**JeffC:** Actually, there is only a thread on "calculators in the high school" here... at some point we'll need to go to the K-3 Resources group room where I believe they have another discussion going.

**JeffC:** If your chat is detached, I'd suggest taking a look at what's in this room, and after you've joined, post an introduction to yourself in the Discussion thread... where you may say a few things about yourself, what you're looking for, what your strengths are, etc.

**JeffC:** I have hundreds of math sites linked here, but it's the teachers who will make the true difference.

**JeffC:** How many of you are planning on returning to Tapped In after you are finished with your coursework?

**AmygraceE:** I might

**AdrienneS:** There's a possibility

**DanielleR:** Maybe

**RyanH:** I don't want to "commit" but maybe...

**RolandoM:** I do.

**AmyNT:** maybe

**JenniferAr:** I am

**JeffC:** Well... you've all registered, which is a great start.

**JeffC:** And your accounts won't be reaped unless you're inactive here for a year (inactive = not logging in).

**NicoleCM:** I would definitely come if I could get feedback from other teachers on new lessons I am trying...or just get ideas.

**JeffC:** Exactly Nicole... that's what this place is for.

**JeffC:** btw... HP has an extensive collection of how to teach with their various calculators. You can see their article, with links to the various lessons at:

**NicoleCM:** Under "featured items" I see many links. Can I click on these links to look at them while we chat, or will it kick me out of this room?

**JeffC:** you should be fine clicking those links Nicole, they should open up in another window.

**NicoleCM:** OK. thanks

**JeffC:** Tapped In is a global educator's collaborative with over 800 professional development groups, university and K-12 classes... hmm... I'll have to check the redirect.

**JeffC:** Apparently the article expired... here's another:  
[http://h20331.www2.hp.com/Hpsub/cache/313887-0-0-225-121.html?jumpid=reg\\_R1002\\_USEN](http://h20331.www2.hp.com/Hpsub/cache/313887-0-0-225-121.html?jumpid=reg_R1002_USEN)

**JeffC:** Here are a whole compendium of articles regarding teaching with calculators:

**JeffC:** <http://search.hp.com/query.html?charset=iso-8859-1&la=en&hpvc=sitewide&qs=&nh=10&lk=1&rf=0&uf=1&st=1&qt=teaching+with+calculators&submitsearch.x=0&submitsearch.y=0>

**RyanH:** Firefox prevents sites from opening "popup" windows

**JeffC:** Again, hold the Ctrl key down when clicking links here... or accept popups from Tapped In (best).

**NicoleCM:** So can I propose a real-life calculator situation to the educators out there?

**AmyNT:** sure

**JeffC:** Tools-- Options-- Content-- Exceptions to blocking popups-- type: \*.tappedin.org and \*.www.tappedin.org etc.

**JeffC:** that's one way to accept popups in Firefox.

**RyanH:** I'll try it... thanks

**JeffC:** OK... now... let's get to the whole group, because I want to address individual needs as well as seeing what you all bring to the table.

**JeffC:** Now, you may post this to Discussion under "Personal Introduction" or simply type it in here in chat (or both). I want to know: 1. One thing you would like help with  
2. One thing you feel confident you could help other (math) teachers with.

**NicoleCM:** I do agree that students need fundamental number sense (without calculators). But what do you do with those few kids that just can't memorize times tables by the end of fourth grade? At what point do you relent and say, "use a calculator?"

**JeffC:** so... something that others may help you with, and something you can collaborate or support others with.

**AmygraceE:** as far as using Tapped In or professionally teaching?

**JeffC:** Tapped In is the medium Amy... I'm speaking professionally.

**NicoleCM:** I need help with my above-posted problem. I have 3 students taking summer school that are 11 and they still don't know their math facts.

**AmyNT:** does anyone know of any good websites for making geometry worksheets

**NicoleCM:** Shouldn't a calculator be an option if all else has been tried?

**JeffC:** OK Nicole.

**RyanH:** Times tables have to be memorized. Try "Times Tables the Fun Way" They incorporate stories to help memorize their facts. Great resource!

**NicoleCM:** Good question, Amy. I want the answer to that one too.

**JeffC:** And yes, there are sites for Geometry (and other) worksheets. But why use worksheets if you could have the students work online?

**AmygraceE:** I definitely need help in the realm of creating more meaningful projects that deal with real life problems, I could help with how to differentiate instruction both for special needs children and for all students

**JeffC:** Don't you feel we can do better than our predecessors and simply hand out worksheets for the students?

**AmyNT:** we don't have access to computers all the time.

**AdrienneS:** I can't really answer your question Jeff because I'm not a math teacher...but I know as a music teacher I will push my students to pass their classes, math included! :)

**JeffC:** That's excellent Amy... and yes, I understand that students don't have full access.

**JeffC:** There is also a thread in Discussion on differentiated learning.

**JeffC:** And a group here on Global Project Based Learning.

**JeffC:** Well.. there is certainly math in music... and an excellent group on teaching Art Across the Curriculum here at Tapped In lead by LeoL.

**AdrienneS:** but I'm interested in hearing the answer to Nicole's question

**AdrienneS:** there is math in music I definitely agree

**AdrienneS:** my mother teaches elementary math (3rd) and she gets the lower level students so it's interesting to hear about this

**BJB2** . o O ( you can access archived transcripts of past calendar events at [www.tappedin.org/transcripts](http://www.tappedin.org/transcripts) )

**AdrienneS:** thanks BJ

**JeffC:** Personally, I would like to see tech used more effectively across the board...as far as calculators in lower grades... if the student can't grasp basic math skills with a paper and pencil, how are you going to facilitate that learning using a calculator?

**BJB2:** there are several on math and music

**JeffC:** process vs. product

**AdrienneS:** thanks BJB! :)

**JeffC:** I would look at the HP articles about using calculators for starters.

**JeffC:** Here's a starting point for geometry worksheets:  
<http://www.google.com/search?q=geometry+worksheets&ie=utf-8&oe=utf-8&aq=t&rls=org.mozilla:en-US:official&client=firefox-a>

**NicoleCM:** true... but it's not the conceptual understanding that lacking with these kids. They can show the product through pictures, repeated addition, words, etc. Its the automaticity that's the problem

**JeffC:** all that is is a google search on "geometry worksheets" ... have you tried that before?

**NicoleCM:** Some kids may never reach automaticity.

**AmyNT:** I have tried before and will try again thanks

**JeffC:** I subbed in a very rich district in Oakland (Piedmont California). These were rich kids... 10th graders... I was to give them a math test. All were using calculators. One of them broke and the student asked "what is 48 divided by 16?" I asked the class "does anyone know?" all of them immediately went to their calculators. I said "no... in your head... does anyone know?" finally one kid came up with the answer.

**JeffC:** so... yeah... automaticity... technology... ignorance... take your pick.

**AdrienneS:** I remember in school what pushed me to learn my multiplication was the incentive we got once we learned all of our multiplication, each set the 1's, 2's etc....would be a part of a banana split and once we built our banana splits on the wall, the teacher made us one...I don't know...maybe that'll help some push to learn

**JeffC:** unless you don't like bananas!

**AdrienneS:** haha good point Jeff

**JeffC:** extrinsic rewards... heck... I was multiplying three digit numbers in second grade... now that isn't even a \*standard\* in my kids' school till fourth.

**JeffC:** thank you NCLB.

**JenniferAr:** I remember that

**RyanH:** I do the "banana split" incentive. The last 2 years, only 2 have not earned it...

**JeffC:** the point is... you need to get kids actively involved with their own education.

**JeffC:** math tends to be a subject where you have a textbook and work through it throughout the year.

**JeffC:** if you have computer access, your district might invest in a pricey program like Successmaker... but it's still drill and kill.

**AdrienneS:** ya, math is usually the boring subject that you get a lot of homework for

**JeffC:** How about doing MLB batting averages, etc.?

**JeffC:** Or recipes (change them for 4 people to 40, etc.).

**JeffC:** what kinds of creative ideas can you come up with to make math interesting and relevant for your students?

**JenniferAr:** we have successmaker the kids love it

**JeffC:** come up with professions where math is required... construction (angles, distance, etc.)... science (medicine)... take a few minutes and brainstorm about it.

**JenniferAr:** my son loved his math teacher he always had cool ideas

**RyanH:** I have a "problem of the week" and it is always a real life problem. If they get it right they get a ticket which is used for prizes.

**NicoleCM:** My students have to do a "survival math" project each month where they have to use math for real world settings.

**AdrienneS:** that sounds like fun

**NicoleCM:** For example, how much does it cost for your whole family to go to a Padres game and buy refreshments?

**JeffC:** Ryan and Nicole, could you both give an example or three?

**AmyNT:** both of those sound like fun

**AdrienneS:** because it's no longer just numbers

**JeffC:** excellent Nicole

**AdrienneS:** on a page

**NicoleCM:** How much would it cost for you and 12 friends to rent a limo (show the break down) etc. The kids love them

**DanielleR:** I teach Discrete Math which all application driven like voting, fair division, etc

**JenniferAr:** good ideas Nicole

**RyanH:** I use sports a lot and monster stuff. Like for sports, I may have the kids figure out the mean of all the scores of the NFL week. NFL is easy because all the teams play once a week.

**NicoleCM:** Example 3...research the minimum wage payments of 3 states and figure out how much you would make in a week, month, year, earning minimum wage...that really gets them thinking about getting a college degree to earn more than minimum wage!

**JenniferAr:** good idea Ryan, I'm going to share that with my coworkers

**JenniferAr:** he gets all the "bad Kids" and they all love sports

**NicoleCM:** Good idea Ryan

**JeffC:** ok... I fixed the redirect: <http://snipr.com/calculator> now links to the HP calculator articles. (snipurl is a redirect site... very useful and editable redirects... free to register and use).

**RyanH:** I also have an "estimation jar" that has candy or superballs, whatever. And, every week I fill it with something. Whoever is closest wins the jar and its contents, but then THEY fill it up with candy, for the next week. They love it.

**JeffC:** I taught at Richmond High (in English, I'm not a math teacher) for 4 years. There are ways to reach students. I do think that having online access is critical... because you want to get them thinking outside of the classroom.

**AdrienneS:** oh ya, Ryan, that's always fun

**JeffC:** Do you ever put a tennis ball in there as well Ryan?

**JeffC:** make them figure out the volume and subtract?

**RyanH:** Now we're talkin...No I never have, but sounds like a unique idea :)

**AmyNT:** ok this has been fun but my son is getting cranky and I have to go.

**JeffC:** this meeting only has a few minutes left.

**RyanH:** It would be like the "Does it float" on Letterman. I play that with kids to show volume displacement.

**BJB2** thinks it's a good time to take a break before the science discussion

**JeffC:** right... there is a Science Resources meeting immediately following this one.

**JeffC:** even if you have chosen not to join this group, click the "add to my favorites" link in the top frame so you may return again easily.

**JenniferAr:** thanks

**DanielleR:** Thanks it was interesting

**RyanH:** Thanks, Jeff