

**Title of Session:** K-20 Math Resources  
**Moderator:** BJ Berquist and Jeff Cooper  
**Title of File:** 20060502mathk20  
**Date:** May 2, 2006

Room: Math Resources Group

**BjB:** We usually start all the Tapped In discussions with introductions. Please tell Jeff, the discussion leader, where you are located, what you teach or hope to teach, and what brings you to the discussion.

**BjB:** I'm an art teacher in Pennsylvania and a helpdesk volunteer for Tapped in. I'm here to moderate the discussion

**LaTrinaM:** I am undergraduate at University of Houston majoring Interdisciplinary studies'

**LaTrinaM:** this my last year

**TamikaE:** I am in Houston, TX. I have just completed my student teaching from the University of Houston and will begin my teaching career in the Fall. Not sure yet what grade, but it will be in elementary school. I am joining the session today to get some ideas on teaching mathematics to young children, along with any resources that will be beneficial to the students.

**CynthiaAG:** I am in Houston TX I am not yet a teacher but hope to teacher somewhere in k-2. I am here to see what this is all about and for a class I am enrolled in at university of Houston

**FatynK:** I am a senior at the University of Houston and will start teaching Science in the Fall

**ErinStr:** I am an undergraduate at the University of Houston, student teacher.

**YaraS:** I am located in Houston. I just finished student teaching!! YEAH I will start teaching next fall in a kinder position

**TanyaDK:** I am in The Woodlands, TX. I just completed my student teaching from U of H as well. I will be teaching 1st grade in the fall.

**BjB:** what a delightful group!

**BjB:** congratulations to those of you almost ready to graduate.

**FredK:** I'm with the Push County Literacy Council (PCLC\_group) in Oklahoma. We tutor literacy students.

**BjB:** Thanks for your introductions.

**CynthiaAG:** Thank you

**BjB:** the first thing I recommend you do if you haven't already done so, is join this group

**BjB:** this will allow you to post to the discussion board

**BjB:** in case you have a math related question

**BjB:** Jeff also posts reminders of the Math Resources group

**BjB:** and you will find many resources in the room

**BjB:** to join the group, find the web window part of the screen that you detached from

**BjB:** scroll down on the welcome note to THIS IS THE GROUP ROOM FOR MATH RESOURCES K-20+

**BjB:** and click on the green i

**BjB:** when you do that you will see the group ID page

**LaTrinaM:** done

**BjB:** at the top of the screen is JOIN THIS GROUP

**BjB:** when you click on that text hyperlink, you are added to the group

**BjB:** to get back to the welcome screen when you're finished, click on ROOM VIEW at the top of the web window

**BjB:** while we wait, I have two links that David shared earlier today

**BjB:** one is to a very cool 3D graphics program from google

**DavidWe** is happy to say a bit about the NCTM meeting

**CynthiaAG:** Seems that way

**BjB:** Sketchup [www.sketchup.com](http://www.sketchup.com)

**BjB:** . o O ( David got these links from the NCTM conference )

**TeresaE:** Oh Thanks

**DavidWe** . o O ( in St. Louis, last week - 15,000+ math teachers )

**RobertaR:** I am trying out the Tapped In chat room for the first time. I am an instructional technology specialist from Norfolk, VA.

**BjB** listens to David's description of NCTM

**DavidWe:** So, the link that Bj just shared...

**DavidWe:** Is a small company (Sketchup.com) that apparently is working with Google or Google bought them or something...

**DavidWe:** And this VERY COOL 3-D drawing program seems to be available FOR FREE (like Tapped In, I might add) to educators

**TeresaE:** the 600 cell is cool, is this from the conference and thanks David

**CynthiaAG:** so do you just download it off this page?

**SusanR** . o O ( coming soon for the Macintosh )

**DavidWe:** I've only seen someone using it for about 10 minutes, but you can download the software - I think I have the Mac and Windows versions on CDs

**FatynK:** cool site

**DavidWe** agrees

**DavidWe:** I know about it - I can't really answer questions as I'm still away from home and haven't tried playing with it yet, but it was the first thing I thought people might be interested in

**DavidWe:** Not sure how well it would work in elementary school, but...Susan?

**TeresaE:** thanks so much it would be good for the elementary or middle school resource math class I plan to get very soon

**YaraS:** I can use this for my new house!!

**DavidWe** waves to Emily

**CynthiaAG:** this is really neat I can't wait till it is done downloading I want to play around with it

**DavidWe** doesn't think it will WORK until it finishes downloading

**TanyaDK**: that's a really cool website, sorry my computer is slow...I just got there

**SusanR**: What is the other site David?

**DavidWe**: Take your time, folks

**DavidWe**: Oh, there's a game...

**DavidWe**: It's called Descartes' Cove

**DavidWe**: It's been out for about a year and originates at the Johns Hopkins University Center for Talented Youth

**TeresaE**: I bet that it is an interesting site to explore

**DavidWe**: Again, I just have the software, I've not really looked at the web site nor played with the software but I'm hopeful that one of the people working with the project might present here in Tapped In about it

**JeffC**: <http://www.jhu.edu/cty/cde/cove/>

**DavidWe**: Thanks, Jeff

**DavidWe**: It's somewhat interdisciplinary but based on a game format with lots of extensions into math, science, geography, etc.

**JeffC**: although I facilitate this group, I'm not a math teacher... and I wanted to give people here a word problem.

**TeresaE**: so what can you do with the games so basically good for integrating into other subjects

**DavidWe** hopes it's not a HARD word problem

**JeffC**: There are over 240 members of this group. What percentage needs to be active to ensure that monthly meetings have a guest speaker or theme to discuss?

**TeresaE**: I am up for the challenge

**TeresaE**: all of them

**DavidWe** smiles

**JeffC:** BTW... if you're not yet a member of this group, please scroll down the top frame and click the little "i" in the green circle next to the link for this group to pull up the group's profile. There will then be a link to "join this group."

**TanyaDK:** I agree with Teresa

**DavidWe** wonders if Jeff needs to say a bit more about his "word problem"

**JeffC:** Joining means that you may post to "Discussion."

**LaTrinaM:** agreed\

**DavidWe:** How many of you have just logged in to TI for the first time?

**CynthiaAG:** 75%

**TeresaE:** me

**RobertaR:** me

**JeffC:** Well... my word problem is indeed a rhetorical question... but actually it is a legitimate question. If there are 240 members, all I need is one per month to take control of what is going to happen with the group, spread out over 12 months that means 5%.

**TeresaE:** really now why is that

**JeffC:** I have posted to Discussion before about this, but not really gotten people up to speed. I have accumulated a lot of math resources here, and we can certainly continue in the sort of ad hoc way we have, just having people login and discuss issues. However, I think that we really do need to get participation in this group up.

**CynthiaAG:** that's not much... yes why is that?

**JeffC:** Well... what is 5% of 240?

**DavidWe:** People come once and then often don't come back

**JeffC:** exactly

**TeresaE:** is it that a group must have at least twelve contributing members at any given time

**LaTrinaM:** me

**CynthiaAG:** about 12

**JeffC:** I need 12 contributing members to take charge of monthly meetings for the next year. Arrange for guest speakers, lead the discussion on a topic, etc.

**JeffC:** Let's start with next month's meeting. School is winding down... can we think of some sort of summer time activities for teachers/students etc. related to math? Something fun perhaps?

**FatynK:** any type of sport can be related to math

**LazaroV:** How about keeping track of the temperature.

**JeffC:** great ideas

**LazaroV:** or is that too much into science?

**LaTrinaM:** baseball

**JeffC:** I think temp might not be as interesting for people... although you could certainly do a graph.

**TanyaDK:** shopping...always shopping

**CynthiaAG** smiles

**JeffC:** baseball... do you know of any sites that integrate math lessons with baseball statistics?

**TeresaE:** why not keep a graph of the record setting temperatures that is submitted to the teachers via email or say the kids keep a journal of math activities that they think of throughout the summer

**FatynK:** swimming..

**TanyaDK:** money, addition, subtraction, it has it all

**JeffC:** as for shopping... yes... figuring out discounts, etc.

**FatynK:** all sports work

**ErinStr:** nutrition counting

**ErinStr:** like fat grams, etc

**TeresaE:** shopping is always good especially for back to school

**JeffC:** some of these have more appeal for certain ages than others too.

**TeresaE:** exercise logs and the number of caloric expenditures

**LazaroV:** sports are full of math. for those who like sports it would be really interesting.

**CynthiaAG:** I'm wondering how I could work sports into a k or 1st grade class

**FatynK:** hopscotch

**TeresaE:** you can also include both science and math in summer cooking with family and friends

**JeffC:** How could we set up something like that Lazaro? Same question for you Teresa... is there an online site or way we could track those things?

**YaraS:** since temps are so high in the south students could find the difference between the average temp for this time of year and compare to the current temp

**CynthiaAG:** I'm not especially interested in sports but I know I will have students who are

**FatynK:** the younger ones can count using hopscotch, jump rope, hula hoops

**LazaroV:** good idea Fatyn. counting is very important for earlier grades.

**ErinStr:** for sports you could keep up with statistics

**YaraS:** even simple games that involve probability young kids love

**TeresaE:** you could have the children estimate the number of rain days expected according to the previous years records and make predictions

**JeffC:** not just statistics... how about salaries... or prices of baseball cards tracked over years.

**FatynK:** percentages can be practiced through shooting free throws in basketball

**ErinStr:** ooh I like the salary idea

**JeffC:** there are a variety of things kids could do... track items on ebay (this could combine shopping with sports).

**TeresaE:** there's also the idea of planning and budgeting for summer vacations if some of the children are anticipating a short summer vacation

**JeffC:** I think Willie Mays made less than \$100,000 in his best year.

**JeffC:** Good one Teresa.

**FatynK:** salaries is a good idea..gets kids thinking outside the box..help develop stronger business minds

**LazaroV:** you could compare sports salaries.

**LazaroV:** football players make less than the other sports.

**YaraS:** to what teachers make!

**LaTrinaM:** from basketball to football salaries

**ErinStr:** I was listening to team salaries in baseball and the top and bottom team salaries were sooo far apart

**TeresaE:** they can also work on telling time by recording the amount of time they spend on the computer or in front of the television watching educational television of course

**JeffC:** Now... here's what I'd like to do... I will start a Discussion thread here... and ask you to reply to it with ideas of your own. Take your time, write a decent paragraph (or lesson plan) with ideas, links, etc... and we'll develop it throughout this month so that next month (pretty much the last meeting of the school year ) will have something of substance for teachers to give their students over the summer.

**FatynK:** or numbers of players required to play per sport..u can use ratios

**LaTrinaM:** basketball get the most

**YaraS:** I think it would put things into perspective to compare all types of salaries to children

**TeresaE:** sounds like a winner to me

**CynthiaAG:** I agree

**LazaroV:** yeah, that's true Yara.

**TeresaE:** but which salary is more valuable that of a monetary one or one that gives value of the heart and mind

**LaTrinaM:** I agree too"

**TanyaDK:** I teach 1st, so 15, 000 is just as much as a million



**YaraS:** I agree

**FatynK:** I agree, but getting them actively playing the sport might be better...it will get more kids off the couch and more active..and also talking too much about athletic salaries might turn kids away from academics

**TeresaE:** exactly and ask a child how much is a lot and they will tell you all kinds of things

**YaraS:** yep

**LazaroV:** that is true, that's why you see a lot of people skipping college for pro sports.

**FatynK:** well most students don't understand that there is a very slim chance of going pro..so they need the academic background

**YaraS:** maybe track the home teams stats over the summer for baseball

**TeresaE:** agreed

**LazaroV:** maybe we can talk percentage of people that actually make it to pro sports.

**JeffC:** I have used math to show the (un)likelihood that students could become pro athletes.

**FatynK:** or doing a project about the area/stadium

**FatynK:** how many ppl it holds..its area..etc

**JeffC:** use the football draft (7 or 8 rounds times 27) etc.

**CynthiaAG:** I like that Jeff shows students that school really is important

**LazaroV:** yeah

**JeffC:** or even worse, basketball (only two draft rounds)

**YaraS:** younger students could try to find all the different types of geometric shapes in a baseball field

**TeresaE:** that is an interesting lesson and a true eye opener for many of children

**LazaroV:** cool idea Yara.

**YaraS:** basketball arena, or football stadium

**CynthiaAG:** nice idea Yara

**JeffC:** get some statistics about where the jobs will be in ten years, how much people are likely to make... what area students could go in, etc.

**LazaroV:** we can talk dimensions of playing area, for older students.

**JeffC:** Yara, that is a great idea... and you could easily get links to pictures of various parks and stadiums online.

**TanyaDK:** I like that...just get students to think about shapes in nature is great

**YaraS:** I think like a Kinder teacher sorry

**TeresaE:** what about the concept of the volume of the stadiums and arenas

**CynthiaAG )** that works for me I want to teach the younger grade

**TeresaE:** no problem that is the best concept keep it simple

**TeresaE:** I too am geared to teaching the younger grades

**JeffC:** try this one for instance:

<http://www.joethegraphicsguy.com/files/Ballparks/Coliseum.jpg>

**LaTrinaM:** great site

**ErinStr:** that's a good one....I like this idea of finding geometry in things

**YaraS:** cool picture

**TeresaE:** so do I because sometimes geometry is a hard concept to teach and to understand

**ErinStr:** you could even extend it to symmetry

**TeresaE:** especially for the younger grades

**LaTrinaM:** true

**ErinStr:** all fields are symmetrical

**TeresaE:** yes

**TeresaE:** even Little league

**YaraS:** you could go into how many positions there are and where they stand

**YaraS:** involves numbers and spatial reasoning

**JeffC:** actually... I think most ballparks are somewhat asymmetrical aren't they?

**TanyaDK:** area, perimeter

**JeffC:** is there a park that has the same distance to left and right field foul pole?

**LazaroV:** yes, they have different angles now.

**CynthiaAG:** that's really interesting I could see kids getting really excited about something like that

**ErinStr:** probably, but the infield is symmetrical

**YaraS:** you could go to a baseball field and measure the distance between all the bases and the spots in out field

**JeffC:** but let's assume that even the outfield is a perfect arc... how many students (this is for the older grades) would know how to calculate the area of a baseball field?

**TeresaE:** for the older kids the speed or velocity of the thrown ball and at what angle should the ball be thrown to reach the batter at a certain angle

**FatynK:** that gets into physics

**TeresaE:** or the perimeter for that matter

**JeffC:** sounds kind of like physics to me Teresa... wouldn't that be calculus?

**LazaroV:** I would find that hard. maybe they can find the area for the infield diamond.

**JeffC:** you think it's hard Lazaro? Actually... it would be quite easy!

**FatynK:** but physics and math go hand in hand

**TeresaE:** yes it does and do we not want to stretch their imagination

**JeffC:** who here can think of the formula for finding the area of the fair territory in a ballpark?

**FredK:** <http://www.braingle.com> has brain teasers, puzzles, riddles and games. If you want it, you can get a daily challenge from them by email.

**JeffC:** thanks Fred!

**LazaroV:** the area of a baseball field would be pretty tricky to me.

**JeffC:** <http://www.brainpop.com> is another great site.

**FatynK:** thanks Fred. I love that kind of stuff

**YaraS:** thanks

**JeffC:** think about it Lazaro... picture what you're looking at... if the outfield was a perfect arc...

**TeresaE:** we want them to get excited about learning and what better way than to get them at something they are already interested in

**TeresaE:** good point though

**YaraS:** look how much we are getting interested in this

**JeffC:** and the distance to the left and right field foul poles were equal... what would the formula be to figure out the area of a baseball park's fair territory?

**YaraS:** if you keep that up with your students they too will be interested and excited

**TeresaE:** really way cool

**JeffC:** want the answer?

**YaraS:** yes

**LazaroV:** oh, I'm thinking about all of the angles of the real ball parks.

**CynthiaAG:** yes

**FatynK:** take the kids out for a kickball game and have them take down their own stats

**JeffC:**  $\frac{1}{4} \pi r^2$  ... think about it... a baseball field is basically a quarter of a circle.

**FatynK:** that gets into tables and graphs

**LazaroV:** wow.

**JeffC:** I did say assuming the outfield was a perfect arc... with left and right foul poles being equidistant.

**TeresaE:** so then we get back to the basics and work up to questions such as these and get them to asking their parents, coaches and neighbors

**LazaroV:** okay

**FatynK:** all students need to be able to create and read charts and tables for state tests

**CynthiaAG:** wow brainpop has a lot of stuff

**JeffC:** yup

**TeresaE:** and a cool site

**YaraS:** that's good to bring in social studies too history of baseball and the ballparks

**LazaroV:** yeah, I like brainpop

**TeresaE:** exactly

**LazaroV:** it has pretty much all of the subjects.

**ErinStr:** you could teach them scale....measure a real baseball field and recreate it to scale

**FatynK:** yeah, it does

**CynthiaAG:** I have never heard of it later I will look at it but I can't now I would get to distracted

**YaraS:** this is a cool idea

**TeresaE:** that sounds like a winner to me

**YaraS:** I know I need to write this up so that I will remember all of it

**TeresaE:** when was the last time children worked with graph paper and drawn something to scale

**JeffC:** ok... this group has about another 10 minutes... and unfortunately... I have to run and pick up my kids! however, I did leave a question in Discussion... basically asking for people to post their ideas for fun summer math activities. I think we've gotten a good start on some, and people here are welcome to continue discussing this after the meeting officially ends. please don't leave if you don't want to!

**TanyaDK:** I love brainpop, but I was looking at braingle and I think that it designed for the lower grades. I wish there were some easier brain teasers.

**LaTrinaM:** in high school

**TeresaE:** but you will also have the transcript to keep and print the part you want to put into a file

**JeffC:** Tanya... also check out <http://www.starfall.com> and <http://www.pbskids.org>

**JeffC:** both of those sites are for younger students.

**FatynK:** gotta run guys..have another session in 10 minutes..thanks for the ideas...later

**TanyaDK:** okay, thanks

**ErinStr:** [www.funbrain.com](http://www.funbrain.com) has great math games for all levels

**TeresaE:** I plan to visit that site and see how to incorporate it into an idea for summer math activities

**CynthiaAG:** ya I was noticing that myself Tanya

**FredK:** <http://www.funbrain.com> has baseball math challenges

**TeresaE:** thanks for getting this discussion going

**TanyaDK:** see you there Fatyn

**CynthiaAG:** I really like funbrain I have found some really interesting things there

**YaraS:** starfall is awesome my kinder kids love it

**ErinStr:** I love funbrain too

**TeresaE:** I would not mind doing some of the activities just for fun

**TanyaDK:** I have used starfall for kinder too, I think it will be even better for 1st

**CynthiaAG:** what is starfall Yara??

**TeresaE:** what was that, what I was saying is that I would not mind trying some of the activities for myself

**LazaroV:** these sites have plenty of fun things to do.

**LazaroV:** I like them because kids see it as playing, but they are learning, too.

**ErinStr:** I got some great ideas today

**YaraS:** [www.starfall.com](http://www.starfall.com) was a website that Jeff mentioned before he left

**ErinStr:** I love that site too

**CynthiaAG:** oh I didn't see that one thank you

**LazaroV:** I will definitely keep these websites in mind.

**ErinStr:** thanks everyone, I have another session too....see ya later

**YaraS:** lots on there to do with word families and reading for younger kids

**TanyaDK:** see you guys later