

Title of Session: FIRST Robotics
Moderator: Patricia Chen and Robyn Needel
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Room: Robotics (K-12) Group

BjB: We usually start all discussions in Tapped In with introductions.

BjB: I'm an art teacher in Pennsylvania

PatriciaCh: I teach 7th grade math in Florida

BjB: Tiffany? Madison? Greg? Kate?

KateMSt: I am a FIRST robotics student from team 771, from Toronto, Canada

GregN: I am a college student at RIT who is on an internship in Manchester NH

MadisonK: I'm a cubicle slave for a dotcom in Seattle, WA and a FIRST team mentor.

TiffanyLe: Hi all. I'm Tiffany. I'm a college student mentoring 1369 in Tampa, Florida.

VirginiaAM joined the room.

RobynN joined the room.

PatriciaCh: Hello

RobynN: Hi Everyone, sorry I am late

BjB: Hi, Robyn. We're just finishing introductions

VirginiaAM: Me too!

RobynN: I was hoping we'd have more educators here again

PatriciaCh: I was hoping too

PatriciaCh: Madison: How long have you been mentoring?

GregN: what mom we aren't enough for you:-P

MadisonK: 2006 will be my 7th season as a mentor.

MadisonK: 8th in FIRST.

PatriciaCh: By the way: I am Tiffany's mom

RobynN noogies Greg

TiffanyLe: sorry I couldn't make it last time I forgot and was studying for a test

PatriciaCh: Between exams and holiday activities...a lot of people have conflicts

PatriciaCh: What do you all want to talk about tonight?

PatriciaCh: ok.... Madison..did you get a chance to read the RCU newsletter in this site?

RobynN: what team do you mentor, Madison?

PatriciaCh: I am not sure if you are a member

RobynN: sorry if I missed it before

MadisonK: I mentor team 488, Robyn.

RobynN: ah

RobynN: are you an engineering mentor or a NEM?

MadisonK: I'm an engineering-sort.

PatriciaCh: what is your specialization on the team?

UrielE joined the room.

BjB: Hi, Uriel!

UrielE: Thank you!

MadisonK: I am the lead mechanical designer, I suppose you could say.

BjB: Uriel, please introduce yourself to the group

UrielE: I am a teacher at Blanche Charles in Calexico CA.

PatriciaCh: What do you teach?

RobynN: Hi Uriel

UrielE: It is the first time I use Tapped In

UrielE: Yes, I teach 5th grade

PatriciaCh: I teach 7th grade math

UrielE: Where?

PatriciaCh: In Florida

PatriciaCh: Do you have a LEGO team in your school?

UrielE: Wow!

UrielE: No we don't:(

PatriciaCh: Believe it or not...it was in the low 40's this morning

RobynN: that sounds like the weather here, Pat

UrielE: Here, the weather was around 70's

PatriciaCh: But it will warm up toward the end of the week...it is colder where Tiffany is

PatriciaCh: We get our cold spells....the orange gets sweeter with cold spells

PatriciaCh: Have you thought about starting a team?

UrielE: What do you enjoy the most in Florida?

PatriciaCh: The weather....I can wear shorts and sandals all the time....

UrielE: One of the things I enjoy the most here in Imperial Valley (where Calexico is part of) is the culture. Calexico is a border city with Mexicali.

UrielE: What is this session about?

PatriciaCh: We are trying to interest more teachers to be involved in robotics.....it starts with young students in the elementary level and up to high school....

UrielE: What is it about?

PatriciaCh: we have links on our front page ..you can check it out...primarily ...it is to interest students to study science, math and technology

PatriciaCh: FIRST is an organization that promotes this

UrielE: How do students study these subjects?

PatriciaCh: FIRST enhances the curriculum as an extra-curricular activity...at least in my district

UrielE: Do students study these subjects using media, computer programs, print material, or people?

PatriciaCh: Some school districts have a curriculum in place

RobynN: here too, although in the high school Greg attended, there is now a projects class

PatriciaCh: It is more of a team concept

MadisonK: In some cases, FIRST also exists independent of the school altogether.

UrielE: So, you have students attend like an after school program?

RobynN: there are competitions, Uriel, for young students using Lego Mindstorms, where the kids build robots to solve problems

PatriciaCh: the students get together....work on the game...figure out how to solve the problems and then compete

RobynN: in high school, the students build 130 pound robots to play a combination sports type/strategy game

PatriciaCh: the younger students also research the problem

PatriciaCh: and present their findings and solutions

UrielE: what computer programs are required to program a robot?

PatriciaCh: for the younger students...they use Robolab...for the older kids...C

UrielE: What is the success you experience with students?

PatriciaCh: what do you mean?

UrielE: Is it successful.

UrielE: Do students learn a lot?

UrielE: Are students interested in participating?

PatriciaCh: The students enjoy it...they learn team work and how to be gracious

RobynN: it is very successful and students learn a great deal about themselves and science and technology

TiffanyLe: some students I see learn a lot

RobynN: they learn what they can accomplish, they learn how to make a positive difference in the world

VirginiaAM: Not only do they learn, but they begin to see that a career in science or technology might be fun.

PatriciaCh: There are different facets...in the lower and upper grades

UrielE: Do you follow guidelines, standards, etc.

TiffanyLe: they want to do more and ask questions how things work and try to find new ways to do things

PatriciaCh: it doesn't have to be all robot...there are other parts to the program

PatriciaCh: yes there are rules to the game

UrielE: When students are assess, how much growth do you observe?

RobynN: Brandeis University did a study of how kids involved in FIRST achieve....and they found that they are very highly successful at whatever they choose to pursue

PatriciaCh: An article about girls and robot was written in a Detroit paper...I posted the link on this site

PatriciaCh: when the kids get involved...it open doors or introduces them to possibilities

RobynN: a great deal...for instance, we have a student on our team, Uriel, who started to learn computer animation software last year...he said he had no idea that a computer was good for anything except playing games....he is now learning a skill he can get paid to use

MadisonK: It also allows students an unprecedented look into industry. It takes concepts in science, math, and technology and makes them applicable by the students to real world problems.

RobynN: another plus is that students get to meet professionals in all sorts of fields...business, engineering, computer specialties...so they get to see and hear about real world opportunities

MadisonK: ...and get jobs! I'm a team mentor and I got my job because of my involvement in FIRST.

PatriciaCh: Terrific!

RobynN: many of the students come from disadvantaged backgrounds...they learn how valuable their education is and what they can do with it

UrielE: By experience, I know that students are more interested in learning by doing things -hands-on.

PatriciaCh: There are a lot of scholarships for kids who are involved with FIRST

PatriciaCh: This is hands -on

PatriciaCh: There is no real - right or wrong way of designing a robot or even programming one

RobynN: technology and engineering colleges love bringing these kids to their schools because they bring sharp minds...and companies like hiring students who were involved on teams and as mentors because they know how to think

UrielE: hands-on, is a term used here in California to express that students learn with real -actual objects & complete the assignment.

UrielE: Are the scholarship applicable throughout the United States?

RobynN: FIRST is very hands-on. Math and Science make sense to the kids on FIRST and LEGO teams because they understand how it's used to solve real problems

RobynN: yes, currently there's about \$8 million available through various colleges and FIRST organizations

PatriciaCh: This year's LEGO game is Ocean Odysessy...they gave the kids the missions...rescue or retrieve objects...kids had to built and program the robot to complete the missions...this is very hands-on....that is why no one team has the same robot...this is the case for the upper grades

UrielE: Do you expose the students' projects on a science fair or alike or just school wide?

RobynN: what is very interesting is that there are about 1000 teams and 1000 different solutions

PatriciaCh: I do not...it is up to the teacher...I guess you can

RobynN: there are regional competitions, it's a lot of fun

UrielE: What is the criteria to qualify for a scholarship?

RobynN: be on a FIRST team, apply and be accepted to a college that offers the scholarship

PatriciaCh: you have to check out the individual colleges....the information is on the FIRST site

RobynN: some schools may have more criteria

TiffanyLe: scholarships depends on the school. but your grades, school activities just like normal scholarships just have to say what you have done in FIRST

UrielE: Would the teacher be offered a stipend?

PatriciaCh: It is up to your school district

RobynN: it does involve a lot of time

PatriciaCh: Yes it does

UrielE: In our district, we offer hands-on project for science. It is like robot. though, it is standardized base.

PatriciaCh: But it is very satisfying

PatriciaCh: our science fairs are not so hands on...more research based

UrielE: Well, it was a pleasure talking to both of you. Hope you continue having a success with you robot project.

UrielE: I will leave you because it doesn't apply to me.

PatriciaCh: well thanks for stopping in

UrielE: good by

PatriciaCh: Happy Holidays

UrielE: likewise

UrielE left the room (signed off).

RogerAR joined the room.

PatriciaCh: hello

BjB: good job, Roger!

RogerAR: hi, Roger Riquelme from 1369 in Tampa, FL

RogerAR: thanks, BJ

PatriciaCh: I am with 180, Stuart Florida

PatriciaCh: are you a teacher?

TiffanyLe: Roger is college mentor like me mom

TiffanyLe: he's at USF with me

RogerAR: I'm a junior from USF, majoring in mech

RogerAR: er, yeah...what she said

PatriciaCh: ok..as she said.... I am her mom...are you with ASME too?

RogerAR: very loosely, I haven't been to a meeting in a few years

RobynN joined the room.

PatriciaCh: ah....you should...show up every so often

RogerAR: I would, but between school, FIRST, and work, I've been pressed for time

PatriciaCh: Robyn: Uriel said that FIRST may not work with her science fair

TiffanyLe: our meetings are hard at times because they are during the day

PatriciaCh: may be ...you can change it ...to accommodate that

TiffanyLe: we can't

RobynN: I can understand that - Science Fair is a whole different type of program, more geared toward "in school" curricula

PatriciaCh: oh well...Oh we have a new FIRST team...St Lucie has a team now

RobynN: that's great

RobynN: Tiffany, during build season, maybe their meetings will run long so you can spend more time with the team

TiffanyLe: oh those meetings don't conflict with mentoring 1369

RobynN: Pat, Greg loves working with new teams

PatriciaCh: yes.... I wish districts can understand that...in the younger levels...FIRST or LEGO is more hands on.....at least for us...our science fair projects are all research base...the kids get tired of doing it

RobynN: ah

TiffanyLe: ASME doesn't work with FIRST

PatriciaCh: They offer scholarships

TiffanyLe: we are building an electrathon car and working on the ASME student section regional conference

RobynN: oh that sounds like fun...

TiffanyLe: well I was talking about my student section here

RogerAR: ...though we are trying to get SAE involved

PatriciaCh: SAE?

RogerAR: society of automotive engineers

TiffanyLe: I hope you can convince them to let us use their shop

RobynN: Greg and a group of his robotics buddies developed an autonomous vehicle and hoped to be in the DARPA Grand Challenge this past October

PatriciaCh: ah...how about Dean's buzz word...cooperation

MadisonK: My experience has been that college-level engineering groups are not too interested in FIRST.

RogerAR: SAE has a competition similar to FIRST, with cars instead of 'bots

TiffanyLe: it's so hard to do things w/ different societies, school work and FIRST

PatriciaCh: It is good to do something different

MadisonK: Their membership is largely comprised of people who've had no exposure to practical applications of engineering and thus, they want the process for themselves.

RobynN: sounds like a time management problem, Tiffany

PatriciaCh: Thanks...I was checking some things out...what other things do you all want to chat about...I have to be a "pumpkin" this is exam week for me..I have a lot of tests to grade

RobynN: college is often the first place engineering students are exposed to practical applications, Madison....unless they were involved in FIRST of course

BjB: interesting about the lack of exposure to practical application...especially since NCLB and IDEA stress this...use of learning in real life situations

MadisonK: Yes, exactly. That's why I've had trouble getting groups like ASME and SAE to be involved in FIRST.

RobynN: ASME and SAE have their own agendas,

PatriciaCh: NCLB and IDEA doesn't apply to colleges...just K - 12

RobynN: BJ, I think one problem is that school systems are not set up to allow kids to be creative thinkers

RogerAR: true...they're more interested in us, than FIRST

BjB nods to Pat

RobynN: it upsets the curriculum guides

BjB nods sadly to Robyn. Unfortunately, this is true.

PatriciaCh: So the colleges ignored things and concentrate on what has been status quo

PatriciaCh: science fair is one of them...the way it is run

RobynN: I know - after spending so many years advocating for my own kids, I saw it over and over

BjB: do you find that math scores and science scores go up for kids involved in FIRST?

RobynN: I think the way Science Fair is handled is a shame...we had fun with projects throughout the years and our kids won lots of cool prizes

PatriciaCh: the sad part is....when you give the kids the opportunity....they don't know what to do

RobynN: but it was presented to them like it was a chore

BjB . o O (try teaching art!)

PatriciaCh nods

BjB: do you collaborate with NCTM?

PatriciaCh: It is the higher end thinkers that gets involve with FIRST...so we don't worry about their scores

RobynN: this is so true, Pat - Greg has a friend who is also studying engineering, at a different school. He has had very little exposure to practical opportunities...was never involved in FIRST

DavidWe joined the room.

RobynN: Art is so important BJ, as is music...I get so burned when I hear about schools cutting those programs

BjB waves hi to David

DavidWe waves

PatriciaCh: I teach an Intensive and on grade level classes...it is these kids that should be targeted to be involve

RobynN: I am so glad our kids are not involved with "no child left behind" - I have grade school great nieces and nephews who are very bright and not challenged at all...their parents struggle to keep them interested with extracurriculars

BjB: David has an interesting story about using fine art to develop observational skills

DavidWe: Do we have time?

RobynN: sure

PatriciaCh: you talk and I can grade paper...and pay attention

DavidWe: The Frick Collection in New York City is a rather famous, small art museum on 5th Avenue

RobynN: I've been there, a very enjoyable museum

PatriciaCh: yes

DavidWe: My mother has been going over to the Collection from Cornell Medical College with a group of Med students to participate in a educational environment intended to help the med students think about "observation"

DavidWe: Using the Art in the museum

DavidWe: http://www.frick.org/education/collab_art.htm

RobynN: that sounds very smart

DavidWe: It's been going on for some years now...

DavidWe: And my mother (She's a physician, if I didn't mention her role in this) learned that they have also been running the class for police officers in New York City

DavidWe: It's been very successful

RobynN: I can definitely see the correlation

DavidWe: And apparently now, all officers at a certain rank and above are REQUIRED to take this class

DavidWe: It helps them also think about what they are observing in their jobs

DavidWe: I thought it was a spectacular illustration (sorry for that pun) of the value of art and arts education

DavidWe . o O (I think I'm done)

RobynN: I remember attending lectures at the Baltimore Museum of Art with my mom when I was young and having the lecturers emphasize looking at the "small stuff" in the paintings

DavidWe: That's a great museum, too, Robyn

RobynN: I agree

RobynN: my three faves are the Met, the BMA, and the Getty in LA

DavidWe: I'm hoping to have the director of education at the Frick give a presentation on this program in Tapped In

DavidWe: She was very receptive when I called her and mentioned the idea

RobynN: that would be awesome

DavidWe smiles

PatriciaCh: My district is pushing for differentiated instruction....which means....different assignments.....not just taking tests....I gave my student ...a creative option...99% opted to take a standard test

DavidWe: She has some information about Tapped In

PatriciaCh: I was very disappointed

RobynN: you know, Pat, I think the kids are programmed to respond like that...

PatriciaCh:they felt they couldn't do something creative in math

RobynN: that's a shame

PatriciaCh: it is...the kids who opted ...did a marvelous job

RobynN: I know from experience that I have always had trouble with math classes, but when I need to apply it I do much better

DavidWe nods

DavidWe: I think you are not unique in that, Robyn

PatriciaCh: another thing is ...they don't read the problems clearly and completely.

PatriciaCh: most math classes are rather dry

RobynN: oh, I know...my son (who just signed off) hates book math, but can solve complicated practical physics problems, gear ratios, etc., in his head...when it comes to something practical

PatriciaCh: well...it is practical applications that we need these kids to know

RobynN: wouldn't it be wonderful if math texts could be written based on practical applications that would speak to the students?

DavidWe: There's a whole curriculum (now published by Britannica) called "Math in Context"

JeffC: there are quite a few interactive math sites... I'm guessing that only 1% of math teachers use them.

RobynN: "A car gets 10 miles to the gallon, gas costs \$2.10...how much would you save if you combined trips A, B, and C?"

PatriciaCh: yes....it will make my life easier.....the texts are written in format that may as well be written in a foreign language

PatriciaCh: we have problems in accessing the Internet....we do not pc in our classroom

RobynN: I remember being in the first class that took "new math" years ago...it took me all of high school to relearn

DavidWe: At the same time there is "scripted" math instruction - like reading a menu and doing exactly what the curriculum tells you to do

PatriciaCh: the one media lab is always booked

PatriciaCh: so what do you college kids think about your math curriculum

DavidWe: That is probably a good thing, Patricia (that it IS being used) - unless they are teaching typing

RobynN: I have a friend who has told me her principal is a stickler for being on the curriculum page for the specific day - so she is allowed no leeway to be creative or even help kids who are lost

PatriciaCh: yes...so with one lab....hard to book

RogerAR: well, I've found that in the real world, I'm still only using a fraction of what I'm learning

RobynN: I find I use mostly basic operations, algebra and geometry

PatriciaCh: well if I was in your friend's school.... I am a goner

RobynN: but then I am not a techie

JeffC: my kindergartener can add decimals... using a game he learned at <http://www.pbskids.org>... and is teaching kids in my daughter's second grade class.

RobynN: yes I understand, Pat, she hates it....and somehow manages not to stay on the page

RogerAR: granted, FIRST doesn't need to use too much advanced math

PatriciaCh: you don't have to be a techie...Roger...

DavidWe: Jeff's kindergartener has a smart father

JeffC: it ain't me teaching him

DavidWe smiles

JeffC: well... just a little...

RobynN: Jeff should get his kindergartner ready for Junior FIRST Lego League

DavidWe laughs

PatriciaCh: I am lucky..I have a AP on my side..who lets me rewrite the curriculum to suit my Intensive students needs.... I am still working with the benchmarks...but my way

PatriciaCh smiles

JeffC: the problem is... we're stuck with standards... that principal who insists on being on a certain page every day is freakin' nuts.

JeffC: please send this transcript to him/her.

RobynN: Jeff, my kids all learned how to read by watching The Electric Company on PBS....at the age of 3 (each of them)

JeffC: there ya go

RobynN: I agree, Jeff....

PatriciaCh: also to me director of curriculum

JeffC: and zoom is online btw

DavidWe: Isn't that what we wanted Davina to say to people at the cybersecurity conference, Jeff? Something about school boards being "freakin' nuts"?

JeffC: exactly... admins in general

PatriciaCh: what is zoom online?

RobynN: I can't tell you how many school admins I have spoken to about FIRST....and they don't want to hear anything about it

RobynN: Zoom is a pbs show

JeffC has a meeting with the superintendent and assistant superintendent tomorrow... trying to get a job with his local district.

DavidWe grew up without public television. We were too poor to get public broadcasting

DavidWe grins

PatriciaCh: lol

RobynN: you don't know what you missed, David...lol

DavidWe: We only got the stations with advertisements

RobynN: anybody here remember Square One?

PatriciaCh: ah....it means PBS was not entertaining

PatriciaCh: yes

BjB . o O (and he had to walk to school in the snow uphill both ways)

PatriciaCh: dating ourselves

RobynN: our kids learned all sorts of math on that show...

DavidWe wishes Jeff good luck for tomorrow's meeting and encourages him NOT to use the phrase "freakin' nuts" too many times

RobynN: but the schools didn't follow it up

JeffC: well... that attitude that all students should be on the same page highlights the 19th century thinking of today's standards based approach to learning.

DavidWe keeps remembering that Bj had that same problem with uphill school trips

RobynN: are you sure you want to work for the schools Jeff?

PatriciaCh: Jeff: Good Luck....think of positive words....

JeffC: yes I do Robyn

JeffC: because if I don't... the kids won't be using tech.

RobynN: good for you...we need good teachers

JeffC doesn't want to teach... just wants to *support*.

DavidWe: Jeff was born and raised in the People's Republic of Berkeley, so it is part of his being

JeffC isn't the best teacher in a classroom setting...

PatriciaCh: oh then I could use you in my district

JeffC: too freakin' lenient...

RobynN: I am still incredulous that our county's school system yanked "shop" classes out of high schools about 4 years ago

PatriciaCh: no f words

DavidWe . o O (France?)

PatriciaCh: o O (friends)

RobynN: my nephew went to Berkely

JeffC: oh yeah... I use freakin a lot... another reason for me to not be in the K-12 classroom.

RobynN: freethinkers...

PatriciaCh: you can use the f word in 9-12

PatriciaCh: plus more

DavidWe laughs

PatriciaCh: I like freethinkers

DavidWe: Is it encouraged?

RobynN: so do I

JeffC: freethinking isn't allowed...

PatriciaCh: yes...at least in my classroom

JeffC: thought police and NCLB will get ya.

RobynN: well, not in public school

DavidWe: See, I told you - it's commercial television

DavidWe: Not public broadcasting

PatriciaCh: nah...I am the short and strange one

DavidWe smiles

JeffC: "Fear Factor": Public Education...

DavidWe . o O ("Survivor"?)

PatriciaCh: that is me....the evil one

MadisonK: I think it should be qualified as "freethinking about something other than destruction."

PatriciaCh smiles

JeffC is now at a site called "isafe" ... getting certified in training teachers/students in how to be safe online... <http://www.isafe.org>

RobynN: inflicting hundreds of math problems on unsuspecting youth

MadisonK: I can get kids to come up with ten thousand zany ways of blowing something up, but very few, if any, ways of doing something constructive.

DavidWe: Building a bridge - get them to build bridges

PatriciaCh: isn't it amazing...freethinking youths...destructions possibilities

RobynN: one of my favorite thoughts from Edison is how he discovered a thousand ways how not to create a lightbulb

RobynN: Madison, do you ever watch Mythbusters?

MadisonK: On occasion, yes.

KateMSt joined the room.

PatriciaCh: welcome back

RobynN: sounds like a way to teach your kids....they have to create the situation in order to prove or disprove the myth or theory

PatriciaCh: we are talking about what is going on in schools

KateMSt: thanks

RobynN: or not going on, as the case may be

RobynN: like creative thinking

PatriciaCh: or how horrible the curriculum is

PatriciaCh: I hate the text books that I have to use...boring!!!

RobynN: I don't think I have ever seen an interesting math text

RobynN: but I think they could be....

RobynN: math could be so interesting

PatriciaCh: yes they can...I am teaching algebra to 7th graders...talk about a text that is not written for these kids....they have no clue as to what they are reading

RobynN: I have vivid memories of 7th grade algebra

PatriciaCh: if we can have a text....involve some real life...it will be great....as well as have pc available

RobynN: it was not fun....

PatriciaCh: good or bad

PatriciaCh: sorry :{

RobynN: it's ok, I got over it

RobynN: Math was never my strong suit anyway

PatriciaCh: I re write the text as I teach...on their level

RobynN: you have very lucky students

PatriciaCh: math is not hard.....it is all presentations

MadisonK: I'm probably a teacher's worst nightmare -- the first thing I tell the kids on my team is that the physics they're learning in high school is useless.

MadisonK smiles

PatriciaCh: I do rhymes, stories, songs

RobynN: I think the hardest part of math, at least to me, is that it builds on what you learned before...so if you missed something, you get stuck later

RobynN: we phrase it differently, Madison, we tell them that the physics they are learning has a real purpose...and ask them to design drive trains

PatriciaCh: most of what you say is true....I tell the kids..learn it to pass the FCAT....go on to college....get a job if possible where you can play...know the math to help your kids (when they do) on homework...vicious cycle

RobynN: you are right, Pat

RobynN: unfortunately

PatriciaCh: but I do love my job despite all the stupidities that goes with it

MadisonK: I don't usually mince words. I'm kinda nasty that way.

PatriciaCh: no....just honest

RobynN: most of the kids on our team need a lot of encouragement, many are the first to even think about college...so we don't want to turn them off

PatriciaCh: I have a problem with some of the things that elementary teachers tell kids....it messes them up

DavidWe: For example?

PatriciaCh: well....one of my students told me that his third grade teacher told him that no numbers is less than zero ...students see the shape of a parallelogram...assumes it is a rhombus...how do divide decimal numbers...I could go on and on

DavidWe: Where does that come from, Patricia?

PatriciaCh: no numbers are less than zero...grammar

DavidWe . o O (teachers don't know?)

RobynN: I think a lot of elementary teachers never learned higher math

PatriciaCh: Who knows....this is the first year I am teaching 7th grade....prior to this year...I was in 6th....I was forever teaching fundamentals

DavidWe: There usually is very little math in education programs for people not going into math education, specifically

BjB looks at the clock on the wall

RobynN: I had a real problem with a scientist telling our older daughter that she couldn't do something

PatriciaCh: I am a secondary...so I wouldn't know...I think someone is telling usthe hour is near

DavidWe: She couldn't do something, Robyn, because...?

PatriciaCh: yes....lack of encouragement is horrible

TiffanyLe: well adios all. I must go finish stuff. goodnite.

DavidWe waves bye to Tiffany

PatriciaCh: good night dear

TiffanyLe left the room (signed off).

RobynN: she was 12 and decided to build a Tesla coil for a science fair project...found the name of some physicist who was duplicating Tesla's experiments...we told her to call him and get some advice. He proceeded to tell her that NO girl could do that, much less someone who was 12

PatriciaCh: so what do you think Kate

PatriciaCh: I hope your daughter proved him wrong

DavidWe smiles

DavidWe: yes

RobynN: btw, she did build the coil, we found plans in an old magazine and TAB book....it was great, and she won the Science Fair

PatriciaCh: good for her

RobynN: the next year she went on to fabricate a superconductor...this time she found a Hopkins prof who assigned a grad student to teach her

DavidWe: Is she flying jet aircraft, now, Robyn?

RobynN: no, she is a webmaster for an Army contractor

DavidWe: Close

DavidWe smiles

RobynN: the boys in middle school razzed her too much for her proficiency at Science Fairs, it turned her off

DavidWe nods

DavidWe: They will do that

RobynN: yup, unfortunately...

KateMSt: that's one of the only things I love about being at an all-girl's school

RobynN: happened to our younger daughter, too

DavidWe: I bet her Mom went after those boys with a lead pipe

RobynN: well, yeah

DavidWe smiles

PatriciaCh: how many students are in your school?

PatriciaCh: was it your choice to attend a all girl school

RobynN: you know, Kate, at the time the girls were in school, I didn't really think about it, but in retrospect, it would have been good for them

KateMSt: we have 600 from junior kindergarten to grade 12

RobynN: however, they did very well for themselves generally

PatriciaCh: so it is a small school...is it private?

BjB: Time for me to get going. When do you want the next discussion scheduled, Pat and Robyn?

DavidWe waves goodnight

KateMSt: yes, I chose to attend the all-girl's school, there was some pressure from my parents because they knew I'd do well in science, and they didn't want me put off by it

KateMSt: yes, it is

DavidWe: Thanks, all of you

RobynN: what do you think, Pat?

RobynN: they were smart, Kate

BjB . o O (I think you should wait till January)

PatriciaCh: well....that is a good idea

RobynN: probably...can we promote it to the Science Resources group again, maybe some other groups?

PatriciaCh: You were lucky then Kate...Tiffany did not have that opportunity here

BjB: you can post to any group that you are a member of

PatriciaCh: I am only a member of this group

BjB: Robyn is a member of the science resources group

PatriciaCh: ok...post it then

RobynN: yes, I can post it there

BjB: and Pat, you can post reminders to this group discussion board

RobynN: maybe Jeff can think of some other groups and we can join them in order to post

PatriciaCh: I have been sending them emails

RobynN: We can continue to post on Chief Delphi and RCU

BjB . o O (make sure you have your group signed up. I post weekly reminders to some outside groups too...wwvedu, edtech, deos, etc)

PatriciaCh: yes....I will send reminders in the Yahoo group

BjB: so, January 3, 7-9 EST [Ed note: The FIRST Robotics discussions are now scheduled for the second and fourth Tuesdays of the month - 1/10 and 1/24, 2006 - BjB]

RobynN: that works

BjB: Have a wonderful holiday!

BjB waves goodnight

KateMSt: goodnight!

RobynN: good night

PatriciaCh: good night