Title of Session: Problem Based Curriculum
Moderator: Chris Aguirre
Title of File: 20070319pbc
Date: March 19, 2007

Room: Problem Based Curriculum Group

ChrisA: This is the Problem Based Curriculum group and My name is Chris I am currently an aspiring principal

ChrisA: yes that is right an aspiring principal

MarlaR: Lol

ChrisA: I know I know

MateenD: good luck Chris....

MarlaR: Yes, good luck

ChrisA: thanks

ChrisA: anyway I have been a vocational teacher all of my career and my most recent administrative gig was as the director of vocational education for the Kodiak Island school borough in Kodiak Alaska

JohannaRi: she is trying to get back

BjB . o O (since everyone now knows about you)

MarlaR: Lol

ChrisA: I have used some variation of a problem based curriculum most of my career and believe it offers relevance in a core academic classes

JohannaRi: Alaska, woa

ChrisA: now if we could can we please introduce ourselves and where we are coming from tonight

MateenD: Mateen...San Antonio TX

KariD: Kari - Houston TX

ShannonGst3: Shannon...San Diego,CA

MarlaR: Marla... Mission, TX

LukeN: Luke Edinburg, TX

JohannaRi: My name is Johanna Rivas. I am a student teacher from the University of Houston.

ShannonL: Shannon...Dumfries VA

ChrisA: great it looks like we are all over the place I am currently working in South Bronx in NY city

ChrisA: so if we could is anyone currently using a problem based curriculum in their classroom

ChrisA: has anyone ever used a problem based curriculum before in any format

PaulSh: Paul in New Zealand here - just figuring out this Tapped In website

MarlaR: I don't think so..

LukeN: Not really familiar with it.

ChrisA: that's cool welcome Paul

MarlaR: Neither am I

JohannaRi: I am not hundred percent sure what problem base curriculum refers to

MateenD left the room (signed off).

ShannonL: I heard about it but really do not know much about it

ChrisA: That's OK maybe we start there tonight

MarlaR: Great

PaulSh: is this the blind leading the blind?

JohannaRi: thanks!

MarlaR: LOL

YoslenyG: ohhh perfect! I'm Yosleny Garrido, student teacher from UH. Recently at Cy-Fair ISD. I heard about it too.

ChrisA: When we talk about a problem based curriculum we are talking about wrapping our core curriculum content around a larger problem

LukeN: ok

MarlaR: what kind of larger problem?

ChrisA: the idea is to apply the knowledge you're presenting in some sort of application that allows a student to find the relevance for it in some part of their life

MarlaR: Oh I see

ChrisA: great question lets take a subject

ChrisA: Math Ok with everyone

KariD: sure

PaulSh: yes

JohannaRi: perfect

MarlaR: yes

ShannonL: yes

PaulSh: let's put it into a real live context

LukeN: math sounds good

YoslenyG: I see!! When you can do a whole unit on bases of an essential question that will benefit the students because it relates to them personally.

ChrisA: Okay I teach at the high school level so if it's Okay I will start there and move down in grades as we go

MarlaR: Perfect

LukeN: ok

YoslenyG: ok

JohannaRi: yes

ChrisA: At the last school I was at we mapped our algebra course to a welding class

ChrisA: I know what everyone is thinking

MarlaR: Wow, I wouldn't ever have thought about that one

ChrisA: this guy has been in the cold for way to long

MarlaR: lol

YoslenyG: lol

ChrisA: but we based our welding course on a local industry (fishing)

PaulSh: Algebra and welding - why didn't I think of that

MarlaR: lol

LukeN: how did you do it?

ChrisA: students in a section of welding entitled boat building were given 20000 dollars to play with I will explain in a minute

ChrisA: and given the task of constructing a boat

ChrisA: once the boat was constructed they then raffled the boat at a community event

ChrisA: recouping their money

MarlaR: Wow

ChrisA: in this example the problem was building the boat the core knowledge was trig

PaulSh: would you buy it?

MateenD: I think I've heard of that before...sounds familiar

ChrisA: they were responsible for the entire fabrication process from blueprint to cutting to welding to the finishing

MateenD: this was in NY?

ChrisA: they then raffled the boat at community event in the spring

MarlaR: Wow, that takes a lot of talent

JohannaRi: no Alaska, right?

ChrisA: we sold tickets all over the island and all over the state of Alaska

ChrisA: I am getting my states confused believe me the south Bronx looks nothing like Kodiak Alaska

MarlaR: I bet, lol

YoslenyG: lol

YoslenyG: that's for sure

ChrisA: that is one example of how it can be done. another example of how it might work in a math class is use large questions

MateenD: explain Chris.

ChrisA: for example when you we cover the coordinate plane mapping

LukeN: go on

JohannaRi: yes, do

ChrisA: we spent part of this summer mapping four local neighborhoods next the school I am at to look at the change in composition over time. Students gridded out the city blocks onto the plane then graphed the number of people in each area

ChrisA: what we are looking for in a situation like this is to find a guiding question that allows your students to apply the knowledge you are presenting

ChrisA: in that way we are building relevance and meaning into the content we cover

YoslenyG: That's good, you integrated Social Studies and Math

JohannaRi: It is like Yosleny mentioned having an essential question which guide the students

ChrisA: Let me ask this

MateenD: ??

LukeN: ya

ChrisA: were do you find a use for the quadratic equation in life

YoslenyG: the kind of projects students do remember over time

MateenD: u got me Chris....

KariD: no idea

LukeN: I have no idea

MarlaR: Neither do I

JohannaRi: good question. I do not have an answer

ShannonL: don't know either

ChrisA: see but yet we teach this equation in Math A and B in NY how about in other states when is this equation covered

MateenD: fortunately, I'm in elementary...we never teach it...

ChrisA: one practical application for the quadratic formula is to calculate thrust

ShannonL: usually in high school in Va

ChrisA: aerospace engineers use it to calculate thrust when designing things they are putting into space or when they are design new aircrafts

ChrisA: Lets see TX is NASA hub if I remember correctly?

MateenD: yep...

JohannaRi: Yes

LukeN: so it is useful only to those who go on in math

LukeN: ?

YoslenyG: yes

MarlaR: Yes sir

KariD: ok

JohannaRi: It probably be applied to many subjects

MarlaR: How about English, lol?

LukeN: English!

YoslenyG: advance math; cal and physics

ChrisA: mapping the algebra trig to a relevant question that allows a student to use their imagination (design) and practical application is a way of building leaning transfer into any core subject

ShannonL: what about student who just take the basic math classes

JohannaRi: and all grade levels, as well, right?

ChrisA: actually let's look at English then let's look at physics those are great subjects that people grow up and actually use in their everyday lives

MarlaR: Great

ChrisA: over the past year I have become a real believer in the idea of literacy being a wrap around skill

ChrisA: meaning that literacy is weaved into every subject

MarlaR: Oh that is so true

YoslenyG: that's true

JohannaRi: I agree

MarlaR: It really is

LukeN: yes

ChrisA: in that sense English class especially Freshman English and Middle school English offer the possibility of being better assessed in Social science and science class

MarlaR: How so?

ChrisA: I think if you were to try and use a problem to guide an English class it might look something like

ChrisA: because it is in those classes that writing is used to explain ideas and concepts

MarlaR: Yes

LukeN: that's true

LukeN: I've heard that, to write is to think.

JohannaRi: true

ChrisA: and in those courses the relevance of their writing skills becomes a primary source of communication

MarlaR: Very good Luke

KariD: I believe I have used problem based curriculum in my elementary student teaching experience when teaching math

KariD: just didn't know it was called that

ChrisA: I think offering students a chance writing scripts that deal the ups and downs of adolescent life then allowing a media class to produce those scripts is a great way for a writer to see their work come to life

JohannaRi: from what I understand it can be used in any grade level or subject

LukeN: How so?

MarlaR: So it's basically just integrating different areas into one?

ChrisA: I think producing a literary magazine is another great way for a young writer to see their work come to life

MarlaR: Right..

ChrisA: Ya I would say you could describe it like that sure

MarlaR: Ok, I see..

ChrisA: I would describe as using the skill where the skill is applicable

MarlaR: Ok, great, it's making more sense to me now.

ShannonL: could you give an example of how it can be used in the elementary grades

ChrisA: Now I have provided a couple of examples does anyone have an example they would like to share where we could Use ELA skills to solve a problem

JohannaRi: Yes, elementary would make more sense to me as well

ChrisA: sure Shannon

MarlaR: What exactly are ELA skills?

ChrisA: lets give that a shot um sorry about that Marla

MarlaR: No problem

ChrisA: English language Arts

MarlaR: Oh, I see, lol.. sorry

ChrisA: Ny your whole life is one big acronym

ChrisA: ok back to the elementary question

MarlaR: Lol

LukeN: lol

ChrisA: Johann give me a subject

JohannaRi: science

ChrisA: great

ChrisA: and let's say that the class is self contained is that alright

JohannaRi: perfect

ShannonL: ok

ChrisA: Johann where are you at tonight

LukeN: ok

JohannaRi: in Katy, TX close to Houston,TX

ChrisA: It's hot in Houston right

ChrisA: most of the time I mean

MarlaR: Not like it gets in the valley, way down deep in South Texas!

ChrisA: Ok but is the sun out a lot

LukeN: You can say that again

JohannaRi: good climate for now

ChrisA: cool

ChrisA: because that is were I would start

ChrisA: given the fact the TX is an OIL state and OIL is in short supply the idea of wrapping alternative fuels and conservation into a unit and allowing students to construct lets say a solar power fan to look at what it would take in order to cool a certain amount of space would be a great opening for tactile learners

MateenD: sounds interesting

MarlaR: Yes it does

ChrisA: would allow students to look at the industries around them and develop ideas about how they impact their lives today

JohannaRi: Yes, very. Plus I like the fact that it gives the opportunity for students to work together

MateenD: true....wind energy etc..

ChrisA: and gives them the chance to impact their immediate environment

MarlaR: Yes, groupwork is great

JohannaRi: and learn from each other

ChrisA: yes and learn from each other

ChrisA: you just made my entire night with that statement

ChrisA: that was very cool

JohannaRi: creating a sense of community and respect for one another

ChrisA: because in reality no problem is solved in isolation

YoslenyG: That sounds really interesting... I can see students doing that!

JohannaRi: it helps them become better problem solvers together, as a community

ChrisA: and giving students the chance to both solve parts as individuals and solve parts as groups is a great way to build in cooperative learning skills

ChrisA: elementary students are in the right spot for Lego robotics

MarlaR: This has to be the best example yet.

ShannonL: yes I agree

MateenD: we had a camp last summer where our students studied robotics

ChrisA: I think LEGO robotics Joanne give elementary students a great opportunity to construct knowledge

LukeN: LEGO's

ChrisA: pull those things out and use them during the year

LukeN: How so?

YoslenyG: Yes!! That sounds fun, building together.

ChrisA: they are a piece of technology and this is education

MarlaR: Yeah, who would think something they play with all the time could help advance learning..

BjB . o O (Robotics has a discussion twice a month in the student campus. The next FIRST Robotics is Tuesday, March 27)

ChrisA: that means everyday we don't use them is a day we lose money and kid loses opportunities

JohannaRi: well, children learn by playing and discovering

MarlaR: True

MateenD: good point Chris

ChrisA: I think the last subject we wanted to look at was physics is that Okay with everyone

JohannaRi: sure

MateenD: yep

ShannonL: ok

MarlaR: Yes

LukeN: sure

ChrisA: Ok because I think physics has great potential all across the board for real life applications

MarlaR: Right

LukeN: how so?

ChrisA: did anybody read about the kid in PA that built the Fusion reactor in Chem class out of spare parts and Radioshack stuff

MarlaR: No, what happened?

MateenD: no.....cool

YoslenyG: Physics is every where

JohannaRi: no, woa!

YoslenyG: noo

KariD: nope

LukeN: not really

ChrisA: He pulled it off

JohannaRi: that's true

MarlaR: Wow

LukeN: !!

MarlaR: That's amazing

ShannonL: wow

ChrisA: ya that is amazing I am not saying that as teachers we all go out and advocate for this to happen what I am saying is that when possible allows students to do real work

MarlaR: Because you never know what they might come up with..

LukeN: to true

YoslenyG: Offer opportunities to let them explore and create

ChrisA: when it comes to physics I think real applications can be as simple as a more efficient way to move a load from one point to another to how do you create real world movement in a two dimensional application

ChrisA: yes give them opportunities to explore and create

MarlaR: Exactly

MarlaR: That was another great example

MateenD: true...and at any grade level...

YoslenyG: yes

ChrisA: I would go one step further by saying that as educators we look for the opportunities to frame them in the form of a question and give our student the tools and knowledge they need to answer them

JohannaRi: true

MateenD: yep...effective questioning....HOT

MarlaR: We're like sort of guides

MarlaR: Help them along but let them do the discovery

YoslenyG: yes without telling them the answer but facilitating resources

MarlaR: Exactly

LukeN: Communicating with them

JohannaRi: guiding them

ChrisA: Yes I think we can look at ourselves as guides in the sense that once we cover the information we want to give students a chance to use it some way that allows them to see the relevance of the information we gave them

MarlaR: Have them incorporate it in their own way

KariD: yes, relevance is the key

BjB . o O (a reminder that LISTENING is an important communication skill)

LukeN: in their own lives

ChrisA: Okay everyone this has been fun

ChrisA: point well taken

YoslenyG: I think it will be good to do find the interesting topics for the students

ChrisA: and a skill I need to work on

MarlaR: Yes, you've helped a lot

MateenD: thanks Chris...

MarlaR: Thanks

ShannonL: thanks Chris

ChrisA: thanks for coming tonight

KariD: Thanks

JohannaRi: Yes, Thank you!

BjB: The next PBC discussion will be on April 16

LukeN: Thank you

YoslenyG: Thanks, We know a little more