

Title of Session: K-20 Science Resources - ENC

Moderator: Gail Hoskins

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BJB2: Welcome, everyone to the K-20 Science discussion with Gail Hoskins from ENC.

BJB2: Gail, would you like to do intros?

GailH: Yes, I would like everyone to do intros please!

BJB2: Please tell us where you are located, what you teach and what brings you to this discussion

GailH: Even if you were here last hour for the math discussion, please re-intro yourself.

TelfiaJ: I am in Houston, TX observing in a 2nd grade class

BJB2: I'm an art teacher in Pennsylvania and am interested in finding ways to integrate science and art

DavidWe: I'm David Weksler. I'm in New Jersey, near NYC, and I work with teachers helping them learn more about technology for math and science

JulissaE: Hi I am Julissa and I am in PUMA observing a kindergarten class.

DavidWe . o O (PUMA?)

GailH: I am Gail Hoskins, a former high school math teacher and K-12 coordinator, and for past 12 years the Outreach Coordinator for ENC (Eisenhower National Clearinghouse) working with K-12 science and math teachers. I live in Columbus OH, but it is like state # 6 or so in my life.

TelfiaJ: Pedagogy for Urban Multicultural Action (U of H)

DavidWe . o O ("...state #6...more like 'state of mind')

GailH: We all love TLA's don't we?

DavidWe: Thanks, Telfia

GailH: TLA = three letter acronyms (or FLA's with four letters!)

DavidWe LOVES that acronym especially with the new Apple system software, TIGER

GailH: So is the interest of this group K-4 or so, or did I miss somebody's grade level of interest?

TelfiaJ: Yes, k-4 for me

JulissaE: K-4 also

GailH: OK, so I have a question. Besides lesson plan ideas, what other things do you think would be helpful to you as a science teacher in grades K-4?

GailH: I am getting at things that would be available online hopefully --not like more money, etc.

SamtaN joined the room.

GailH: Hi Samta.

DavidWe welcomes Samta back

BJB2: what about community resources, Gail?

GailH: Can you explain what you mean a bit?

TelfiaJ: how can we integrate technology and science instruction effectively?

DavidWe smiles - good question, Telfia

BJB2: Bill Hilton leads the Nuts About Nature discussion and often encourages teachers to focus on environmental topics

BJB2: what community resources can teachers go to to support that learning and teaching

DavidWe . o O (like local nature centers...)

GailH . o O (so you mean community in terms of the local place where the teacher lives.)

DavidWe . o O (museums - Franklin Institute in Philadelphia, for example)

BJB2: yes. How can teachers network with the community members

SamtaN: some science museums also have a lot to offer.

GailH: Indeed they do, and they are often very teacher-friendly.

SamtaN: I know that some of these community resources in my area work very diligently to incorporate teaching and learning aspects that we can use to our advantage

GailH: Other ideas (to what else besides lessons do teachers need).

GailH: Telfia, I want to take your question early and ask if I can change it a bit.

GailH: The original ? was how can we integrate tech and science instruction effectively.

SamtaN: Maybe a little bit of cutting edge technology to make the lesson interesting and interactive for the students Telfia

GailH: I am suggesting that (for this hour, and at times in the classroom) that we should perhaps get to thinking about how to teach science and that the tech is sort of "the servant" of science for that purpose.

GailH: I am all for all the technology -- but I am suggesting a change in mind-set. That our goal is to teach science, and to do so in the best way for students to learn it.

GailH: Am I making sense with this distinction?

BJB2 agrees with Gail

TelfiaJ: yes

JulissaE: Ya

TelfiaJ: what suggestions do you have Gail?

BJB2: What science is covered in K-4?

SamtaN: I think incorporating technology in every science lesson plan is a bit too much to ask for now. I agree with Gail. Maybe we need to slowly and steadily incorporate technology in meaningful ways to make learning fun

GailH: Often it is a dabbling in lots of things -- but VERY hands-on we hope.

GailH: And please believe me, I not ANTI-tech -- I just advocate that the science should be the reason.

BJB2: oh...I have a suggestion...

GailH: I am going to show a site that fits on several fronts.

GailH waits for BJ

BJB2: this was discussed during the K-12 Students in TI

BJB2: the teacher has her 2nd graders log in to weather reports...

BJB2: and give the weather report...and decide if there will be recess that day

BJB2: . o O (outdoor recess)

GailH: That is a great idea, and actually leads right into mine.

TelfiaJ: that's interesting

JulissaE: That is a great way to incorporate technology into the classroom.

GailH: Remember how we had mentioned museums. Well the site that I am going to show is from the Franklin Institute (in Philly)...

TelfiaJ: ok

JulissaE: cool

GailH: and it went up about 18 months ago as part of the 100th anniversary of Wright Brothers' first flight.

GailH: <http://www.centennialofflight.gov/2003FF/activities.html>

GailH: If you have trouble getting to it, hold control key while you click on the link.

GailH: Take maybe 2 minutes and look at the first couple of links.

TelfiaJ: got it, like the connection with standards

TelfiaJ: great pics under cloud clues

GailH: These students were getting to the point of predicting the weather for that 100th anniversary day when they were going to try to "replicate" the first flight.

JulissaE: I find this site to be interesting.

TelfiaJ: any more web resources?

GailH: oh yes!

SamtaN: great site, can see using it with my students in the future:-)

GailH: But what part of science are we wanting to talk about.

GailH: I am going to show a page from the ENC site.

TelfiaJ: ok

GailH: I need to warn you, that, b/c of funding issues, there is an announcement that will come in as a pop-up when you first go to it.

GailH: You will need to get it out of the way and then see what I will show you.

GailH: <http://www.enc.org/features/focus/archive/sciencepicturebooks/>

DavidWe looks

GailH: The navigation is over on the right side of the pictures.

TelfiaJ: good, I love the idea of using pic books to teach (instead of always using textbooks) makes things more interesting

TelfiaJ: thanks Gail

BJB2: now that it's spring, Gail, what can we do to help our kids learn about all the creepy crawlies that are hatching?

JulissaE: I hope I found the right site, but I think that it is important to use picture books to introduce [science]. But I also think it is important that the books make the right connection to the experiment you are doing.

GailH: But here again, I think it is important that the science is what drives things.

GailH: BJ, I have a great resource about that (or at least I think it is great).

GailH: And it is right on target for this grade group too.

BJB2 waits eagerly

TelfiaJ: me too BJ

GailH: I am gong to show the url and then ask.

DavidWe waits

GailH: if we'll skim it for a couple of minutes and come back with something to share -- or a question to ask.

GailH:

<http://www.enc.org/features/focus/archive/ideask4science/document.shtm?input=FOC-003698-index>

TelfiaJ: we cared for mealworms for my Sci Methods course. I can't wait to use them with students in the classroom

GailH: Do you have anything in the article that can help you anticipate what will happen?

TelfiaJ: I like the idea of using the gummi bugs before using the live ones. I'll definitely incorporate that.

GailH: And, one real reason to do so, I think, is b/c bugs can be scary to children.

TelfiaJ: true, how do we handle our own fears of the bugs?

GailH: Despite the idea otherwise, it is often wise to have the children outnumber the number of animals, etc. being observed.

GailH: That is a good question.

TelfiaJ: ok

GailH: Maybe one thing is to learn about when we should be scared and when it isn't good.

GailH: when it isn't necessary.

GailH: But, even with "safe" bugs -- what can a teacher do?

GailH: Any ideas? And it isn't just bugs.

TelfiaJ: I do not like bugs, but I want my students to experience them for many reasons. I'm afraid they will pick up on my fears.

GailH: That is a good thing to be aware of in advance.

SamtaN: we did the meal worms and it was not a very good experience for me either

GailH: Do you have a mentor teacher that you can observe and handle them with the first time?

GailH: There are other things besides bugs that teachers can be fearful of.

SamtaN: We actually handled mealworms for our science methods class where they taught us how to handle the worms

GailH: And did that handling in the methods class help at all later?

SamtaN: it is a good idea to experiment with them alone before the actual lesson

SamtaN: yes the mentoring helped a lot

GailH: I agree. It is a good idea to practice lots of things before doing them with the students.

SamtaN: I am scared of bugs and having gloves on was a plus

GailH: I think having a buddy teacher to practice with can help.

TelfiaJ: I used gloves too

SamtaN: also meal worms are relatively harmless and cannot move fast or fly

TelfiaJ: good idea Gail

GailH: It doesn't have to be bugs. For me, and this is not something you can share -- OK --

TelfiaJ: ok

GailH: I am a mechanical klutz.

GailH: Opening a "different" cd-case can stump me. I look stupid.

TelfiaJ: those stump everybody

GailH: I think, for me, the big thing is to think ahead and to practice them.

SamtaN: absolutely

TelfiaJ: right

GailH: And, as a relaxation technique, we can talk about ...

GailH: how some of us are sometimes a bit timid around bugs.

SamtaN: the problem I faced was to dispose the bugs safely

GailH: and how, we know they are OK --

TelfiaJ: right!

SamtaN: okay Gail

JulissaE: true

SamtaN: we will follow your lead

GailH: I know of some teachers who have the other problem.

GailH: A biology teacher, who, for state standards, etc., really needed to have his students dissect frogs, etc.

GailH: And he wanted to, but the students were in a juvenile correction institution and there could be no cutting devices, etc.

SamtaN: Hey that reminds me have you all looked at froguts.com

GailH: What do you think he did?

BJB2: virtual dissection?

GailH: Exactly.

SamtaN: this is an online dissection site. Perfect for the biology teacher you are talking about Gail

GailH: But let's talk for a moment about the relative merits.

GailH: For a teacher NOT in that environment, which method is "best"?

BJB2: depends on the class, their maturity, strong stomachs, etc.

GailH: And, sometimes there is merit in doing it both ways.

TelfiaJ: true BJ

GailH: What about bats? Would you have them in your classroom?

SamtaN: Agree

TelfiaJ: I would, but I would be so apprehensive

GailH: Out loose?

SusanR: caged

BJB2: I'd rather do a lesson with live bats than dissect frogs

TelfiaJ: I'll take the frogs

GailH: I think there are valid safety issues and the bit about dissecting to deal with.

SamtaN: Same here BJB

GailH: There are lots of resources for teaching about bats that don't require you to have them.

GailH: <http://www.enc.org/features/focus/archive/across/document.shtm?input=FOC-002787-index>

GailH: That has some ideas.

GailH: Do you know the Stellaluna book?

BJB2 nods

TelfiaJ: I never considered the safety issues of dissection, you're right Gail.

SusanR nods

GailH: <http://projects.edtech.sandi.net/chavez/batquest/navigator.html> is about that book.

TelfiaJ: activity 3 the hand wing is so great

GailH: activity three in the long url, is that what you refer to?

TelfiaJ: in the article

SamtaN: I like the batquest website, tons of useful stuff

GailH: Have you thought about teaching about pH?

GailH: about acids and bases

GailH: There are activities that are great at the primary level.

GailH: But the safety issue (and there is almost always one in science) is that the children should not taste the solutions.

SamtaN: Do you have a website un mind Gail

GailH: And yet, when we talk about them, we often refer to words that sound like they should.

GailH: <http://www.miamisci.org/ph/default.html>

GailH: This has the 7E's in the lesson plan. They are great for science.

SamtaN: Very useful Gail, Thank you

SamtaN: I am in the midst of pH and can use this website right away

GailH: That's great.

GailH: I want to mention that the site that i am with ENC (Eisenhower National Clearinghouse) is at www.enc.org

DavidWe: A GREAT web site

GailH: We have been funded by US Dept. of Education for 12 years, but that funding ends in Sept.

JulissaE: Thanks for the website!

GailH: While PARTS of the site will remain free, much will become fee-based. We are doing subscriptions at the school level.

GailH: But the magazine will continue to be free.

TelfiaJ: Thank you Gail, for the advice and the great web resources

GailH: You can find out more by following the link at the top of any page on the ENC site.

SamtaN: extremely interactive. My kids are going to love it, Thanks again Gail

GailH: Jeff Cooper is the regular presenter for this session. I am expecting that he will be back next month to join us but I am not sure. But someone will be here!

GailH: And we hope that you will too.

GailH: Can you think for a moment...

BJB2 smiles...we wrote lemon juice messages when I was a kid....talk about a timeless lesson!

SamtaN: smiles

GailH: if you could plan the FIRST thing that will happen next month in this event, what would it be about?

GailH: What SPECIFIC thing would you want shown or answered?

GaleH: Nobody can leave without answering!

TelfiaJ: I would like to talk more about the web resources. You have given such great ones. There must be more.

BJB2 chuckles.

SamtaN: How about some more web resources. I'm kinda struggling in that area

BJB2: Telfia, Jeff has a zillion web resources in the K-20 Science resource room...

GailH: Web resources about what?

JenniferL: Virtual interactive activities like the knee surgery online...great for kids

TelfiaJ: Thanks BJB

BJB2: just having a list of websites doesn't help you integrate tech with lessons

TelfiaJ: and thanks Gail

JenniferL: virtual dissections

SamtaN: Chemistry for me, but I will go with whatever everyone else decides

JenniferL: virtual molecular models

GailH: OK, I leave you with this...

GailH: later this week is the anniversary of an important event in science

GailH: and here are resources to go with it

GailH: <http://www.enc.org/features/calendar/unit/0,1819,51,00.shtm>

SamtaN: thank you all and see you again

GailH: Have a great month everyone!

BJB2: thanks, Gail.

TelfiaJ: goodbye all!

GailH: Thanks for coming!