

Title of Session: Beyond Penguins and Polar Bears - Water, Ice and Snow

Moderator: Jessica Fries-Gaither

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JessicaFr: we're going to talk about our August issue of Beyond Penguins and Polar Bears tonight - if you want to take a look before we begin, you can visit <http://beyondpenguins.nsd.org/>. I'm happy to answer any questions while we're waiting for others!

JessicaFr: let's start with some introductions. I'm Jessica, and I work at Ohio State University. I used to teach and now I'm the project director for Beyond Penguins and Polar Bears.

JessicaFr: what about everyone else?

LeahHL: My name is Leah and I'm a graduate student at San Diego State University in the Reading and Language Arts Specialist program

MayraA: undergraduate student at University of Texas Pan American

DavidW: I'm David Weksler. I'm one of the HelpDesk volunteers for Tapped In. I'm in New Jersey

JessicaFr: Great. Has anyone visited the Beyond Penguins site before?

BJB2: I'm a retired communications teacher and am one of the Tapped In helpdesk volunteers.

JessicaFr: If you haven't, we are a free online professional development magazine aimed at elementary teachers

JessicaFr: Our focus is integrating science and literacy through the study of the polar regions

LeahHL: I had never seen it before--just started looking when BJ gave me the link

JessicaFr: We just launched in March - have 5 issues at this point.

JessicaFr: Our latest, the August issue, is focused on using the Arctic and Antarctica to teach the water cycle and states and changes of matter.

CarolinaDM: I was taking a look at the cyberzine..interesting, never seen one before

JessicaFr: It's a new model...we definitely welcome feedback to make it more user friendly!

MatthewHS: Wow, what an abundant amount of material - I was looking at the lesson planning activities.

LeahHL: this would be great to use at School in the Park, a program I used to work for in Balboa Park. There is a session at the Reuben H. Fleet Science Museum and the 5th graders study the phases of matter

MayraA: yes is exciting a lot of information

JessicaFr: One of our new columns is a professional bookshelf for teachers. I'll give you the link to go visit.

JessicaFr:

<http://beyondpenguins.nsd.org/issue/column.php?date=August2008&departmentid=professional&columnid=professional!bookshelf>

CarolinaDM: I saw the bookshelf, clever concept

JessicaFr: The books have been referenced in articles - we'll update the column as we review more.

JessicaFr: We also have some new organizational features that I think are really helpful. One is a custom search - you can type in your own keywords and search our site for materials.

JessicaFr: So if you go to the home page - <http://beyondpenguins.nsd.org/> and type in "seasons" you'll get a list of our articles that deal with the topic.

MayraA: So anything based on the polar animals ...we can find in the custom search?

JessicaFr: We haven't covered a lot to do with polar animals yet - those issues will be early 2009 - but there is some from the blog. Take a minute and tell me what you find!

JessicaFr: we chose to start with earth and physical science since most elementary teachers are less comfortable with these topics

MatthewHS: Jessica, what kind of feed back are you getting from those lesson plan and activity links?

JessicaFr: To be honest, not much at this point!

LeahHL: I like the literacy connections with informational texts

LeahHL: nonfiction is huge and teachers often can neglect this type of literature as important

JessicaFr: We just created an online survey to go with our science/literacy lesson plan article - I would love it if you would read that article and take the survey.

MatthewHS: Perhaps, making one or two featured activities and make a place easy for commenting available?

JessicaFr:

<http://beyondpenguins.nsd.org/issue/column.php?date=August2008&departmentid=literacy&columnid=literacy!lessons>

MayraA: Is the survey productive for your lesson plan?

JessicaFr: we're somewhat limited by technology - the blog has been our main place for comments. I know that the amount of content can be overwhelming.

JessicaFr: And Mayra, I'm not quite clear on your question...can you rephrase?

MatthewHS: yea, even good content can be overwhelming.

JessicaFr: Our goal for fall is to get some good evaluation going with teachers here in Columbus and at some of the NSTA conferences. I'm hoping that will guide our design of future issues!

JessicaFr: Another new way to view our content is by column. A popular monthly column is our virtual bookshelf. Now, with this new feature, you can group all the virtual bookshelves from all of the issues. <http://beyondpenguins.nsd.org/browse/index.php>

JessicaFr: Please take a minute to try this out. We're all really excited about this new feature!

MayraA: I like the idea of the 'Polar News & Notes' ...is a source

JessicaFr: That's been a fun part to write - it makes me keep up with the news and research from the poles!

MatthewHS: That is a very nice feature, I like that format.

JessicaFr: And Leah, I noticed that you were talking about informational text. That's our main focus in terms of reading - we even have informational articles written for students. Let me give you this month's link to an article about why ice floats.

JessicaFr:

<http://beyondpenguins.nsd.org/issue/column.php?date=August2008&departmentid=literacy&columnid=literacy!feature>

CarolinaDM: speaking of this month's featured article, I really like the marshmallow-gumdrop H2O project

LeahHL: Thank you, that's wonderful. Fits in right what we've been focusing on in my literacy classes

LeahHL: focusing on literacy across content areas

JessicaFr: We offer three levels of differentiated text, identified by grade bands: K-1, 2-3, and 4-5. You can print the books as foldable books or have students read and listen online - electronic books.

MatthewHS: Carolina, had you seen that before?

MayraA: Fun activities is something students always are looking forward to do

JessicaFr: And now that you can browse by column, you can easily get all these stories in one place.

LeahHL: This is a great way to learn about science

CarolinaDM: no I hadn't, it a great hands on

MayraA: interesting Leah

CarolinaDM: I know I enjoy the hands on too

MatthewHS: That speaks volumes Jessica.

JessicaFr: Our philosophy is that hands-on science is the foundation for reading, writing, and discussion with a real and compelling purpose.

JessicaFr: It seems like everyone has looked around a bit. Do you have questions or articles that I can point you to?

JessicaFr: Or - are there other features that might be helpful? More images? Video clips? Less content?

MayraA: The article "New Fossil discovery Shed Light on Past Climate"....how often are fossils found?

EdwardT joined the room.

MayraA: I thought it was interesting

JessicaFr: That discovery was one of the first fossils discovered in that area - and certainly one of (if not) the first insect fossil.

MatthewHS: Hi Edward, cool stuff here

JessicaFr: The plant was actually preserved to the cellular level - amazing!

JessicaFr: welcome, Edward.

CarolinaDM: wow

EdwardT: Greetings Matthew--yes indeed!

MayraA: Wow Amazing! thanks

EdwardT: Good day Jessica!

BJB2: Edward, Jessica is discussing the latest issue of the magazine <http://beyondpenguins.nsd.org/>

JessicaFr: Edward, are you a teacher?

EdwardT: Thank you--I see the link.

EdwardT: I once was, yes, I now am completing my doctorate at UCSD/CSUSM.

JessicaFr: Great! In what discipline?

EdwardT: I am pres and ceo of a non-profit foundation here in Cali

JessicaFr: I'm always amazed at the diversity of the groups in these chats!

DavidW smiles

EdwardT: I taught middle World History and community college government, poli sci., etc. I have three children ages 11, 14, and 17...

JeffC: what's the url for your non-profit, Edward?

EdwardT: www.chp11-99.org

EdwardT: I meant to write middle school

JessicaFr: Another popular article is our misconceptions article. We discuss common

student misconceptions and provide a formative assessment probe to help teachers learn what their students are thinking. The probe in the August issue asks students to consider whether the amount of water on earth has changed over time.

JessicaFr:

<http://beyondpenguins.nsd.org/issue/column.php?date=August2008&departmentid=professional&columnid=professional!misconceptions>

MatthewHS: I like that probe - students need to think outside of phase.

JessicaFr: Its funny - we teach them the water cycle but I don't think we stop to consider if they truly understand conservation of matter before we do...

JeffC: here's a redirect for Jessica's last link: <http://snurl.com/misconceptions>

JeffC: Water, Ice, and Snow -- Misconceptions [beyondpenguins_nsdl_org]

MatthewHS: I agree

JessicaFr: In other months, our probes have dealt with weather and seasons across hemispheres, and whether or not various items are fossils.

LeahHL: Conservation isn't taught typically, and I would think it's today's youth that need to understand it the most

MatthewHS: That probe also allows a teacher to say, "so what the ice caps are melting, we aren't losing water?"

JessicaFr: Exactly!

JessicaFr: And the inspiration behind the entire issue is that many water cycle diagrams focus almost exclusively on rain - but what about snow? All the ice in the polar ice caps? On a geologic time scale, its still part of the cycle - and especially now with climate change and more rapid melting.

JessicaFr: We also profile a researcher each month - Jason Box from Ohio State is in the August issue. I think his work is really fascinating.

MatthewHS: Can't have rain with out clouds - wait they must be part too.

JessicaFr:

<http://beyondpenguins.nsd.org/issue/column.php?date=August2008&departmentid=field&columnid=field!researcher>

JessicaFr: and yes, you are right! so many neglected parts!

JessicaFr: Jason studies melt ponds on Greenland's ice sheets

MayraA: I agree Matthew

JessicaFr: These ponds form during the summer months because of the intense solar radiation...and they are big...big enough to cross by boat!

JessicaFr: Scientists are studying their behavior and how they might affect the movement of the ice sheets.

MayraA: because of the heat...?

JeffC: here's a redirect for Jessica's last link: <http://snurl.com/researcher>

JeffC: Water, Ice, and Snow -- Researcher Stories [beyondpenguins_nsdl_org]

CarolinaDM: I believe the precipitation part Matthew and Mayra

EdwardT: Thank you all--I am off to explore more. Thank you for the kindness and courtesy!

JessicaFr: When enough water builds up, cracks form in the ice and huge holes open up called moulins. The water can rapidly drain out.

JessicaFr: One study documented a melt pond two miles long and 40 feet deep draining in less than 90 minutes!

CarolinaDM: so is that how big chunks of ice caps break off?

JessicaFr: So scientists want to know where the water goes - and if it flows down to the base of the sheets, does it speed up the movement and possible calving at the edges?

JessicaFr: They aren't quite sure, Carolina. I've read conflicting reports on this - I think we need to wait for more information!

CarolinaDM: ahead of myself? ok

MatthewHS: Do you have a video on this?

MayraA: The information is not enough to find out...on what Carolina mention that is interesting

JessicaFr: We don't have video of the drainage, but I know there is some out there. Woods Hole just did an expedition - let me grab their url

JessicaFr: <http://polardiscovery.who.edu/>

JessicaFr: we do have a video in our article of Jason crossing a melt pond in a boat - it is amazing how large they really are!

CarolinaDM: in a boat?! I have a different picture in my head now--of the melt ponds

JessicaFr: Yes, they are more like lakes!

MayraA: how about the videos in <http://www.globalchallengeaward.org> ? in the article "Global Challenge"

JessicaFr: I haven't gotten to see the videos from that site yet - please share!

MatthewHS: Changes the idea of the life affected as well

MayraA: There are six main project areas: Global Business Plan, Technical Innovation Plan, STEM Explorations, Green Earth Corps, Quantum Videos, and Design TASC. More information can be found at

JessicaFr: Mayra, have you been involved with this project?

JessicaFr: I posted to our blog about it, but don't know much more than what I wrote.

MayraA: no but I was just reading about it now....and like the idea

MayraA: ok thanks

JessicaFr: it sounded really interesting...I'm going to keep an eye on that site! I'm sure the students will have some amazing ideas.

MatthewHS: Thank you everyone - I'll be sharing my info with several others in the field of elementary education.

MayraA: I'm sure about that

JessicaFr: Thank you, Matthew!

DavidW: There will be a Tapped In discussion about The Global Challenge later this month - Monday, 25 August at 7pm EDT

DavidW: . o O (check the TI calendar)

CarolinaDM: nice

MatthewHS: Thank you, bye. - Got it David.

JessicaFr: Leah, I also wanted to share our literacy article from this month - it is about using science notebooks to integrate science and literacy.

JessicaFr:

<http://beyondpenguins.nsd.org/issue/column.php?date=August2008&departmentid=professional&columnid=professional!literacy>

LeahHL: thank you. I will share it with my fellow coworkers at School in the Park. I really think they would use this

JessicaFr: It basically reviews a book by Michael Klentschy, who is the superintendent of El Centro School District in CA. They've been using notebooks for some time and have had some amazing results.

LeahHL: check them out <http://www.schoolinthepark.org>

JessicaFr: Great - and I would love feedback on any and all of the articles!

JessicaFr: And I will check out the link! Thank you!

CarolinaDM: I think the science notebooks are a great idea

MayraA: Yeah that is something new ...

JessicaFr: I never used them as described in the classroom - but they sound fantastic!

JeffC: here's a redirect for Jessica's last link: <http://snurl.com/profliteracy>

JeffC: Water, Ice, and Snow -- Literacy Content
Knowledge [beyondpenguins_nsdl_org]

CarolinaDM: I still refer back to my high school comp books from chemistry and biology

JessicaFr: Klentschy talks about that - how these notebooks become a permanent record of learning. It really is true!

CarolinaDM: oh yes

CarolinaDM: I'm a big fan of research and documentation for my own personal references

JessicaFr: And it seems that students are so engaged in the inquiry process - and in the writing! I think it would take some of the writing resistance away from certain students...

CarolinaDM: definitely

CarolinaDM: kind of like a journal

JessicaFr: And...the best part (I think) is that as described in his book, the notebooks are totally student owned. There are required elements, but all the writing, tables, word choice, is totally authentic

MayraA: something exciting to do ...while learning

MayraA: sounds great

JessicaFr: exactly!

JessicaFr: Mayra, I apologize if you said this before...are you studying to become a teacher?

JessicaFr: And welcome, Susan! We're talking about the latest Beyond Penguins issue: <http://beyondpenguins.nsd.org/>.

MayraA: Yes I am...in a year or so

SusanR: Thank you!!

JessicaFr: wonderful. elementary?

MayraA: Planning high school ...you think the idea of the science notebook will work for 9th graders?

DavidW: I think so, Mayra

JessicaFr: I do - you'd need to modify a bit, but there's a need for science integration all the way up!

DavidW: Part of doing science is recording observations - at any level

MayraA: agree

MayraA: observations and discussions ...to keep up with the assignments and projects

CarolinaDM: the scientific method can also be applied to other disciplines

JessicaFr: Another article of interest is our science content knowledge...we know that teachers sometimes have to teach topics they aren't totally comfortable with. So we try to provide information to help them feel more confident.

JessicaFr:

<http://beyondpenguins.nsd.org/issue/column.php?date=August2008&departmentid=professional&columnid=professional!science>

JessicaFr: not a problem! are you a teacher?

SusanR: yep!

JessicaFr: great! what level?

DavidW: Susan leads the K-3+ Resources discussion in Tapped In, Jessica

SusanR: I offer the K to 3+ Great resources sessions here at TI.

JessicaFr: thanks

SusanR: K to 8 Occasional Teacher

JeffC: here's a redirect for Jessica's last link: <http://snurl.com/profscience>

JeffC: Water, Ice, and Snow -- Science Content Knowledge [beyondpenguins_nsd_org]

JessicaFr: We have lots of resources for K-5 in our monthly issues...lesson plans...informational articles for students (with printable and electronic versions available)...assessment tools...content knowledge...and more.

CarolinaDM: a water proof placemat of the water cycle..love it!

JessicaFr: I know - isn't it great?

MayraA: sounds great

JessicaFr: Of course, kids could also draw their own - and laminate them.

CarolinaDM: a bit ironic

JessicaFr: Ha ha - that honestly never crossed my mind!

CarolinaDM: hee hee

MayraA laughs

JessicaFr: One other feature I'd like to talk about tonight are two online surveys. We are trying to get our evaluation going now that we have a few issues under our belt.

SusanR: ok ..no more tech problems

JessicaFr: One survey is on our home page (<http://beyondpenguins.nsd.org>). It is a general survey about internet use and you can enter a monthly drawing for a \$50 Amazon gift card just for taking the survey!

DavidW . o O (ooh, prizes!!)

MayraA: thanks for the feedback

SusanR . o O (loves to win prizes)

JessicaFr: The second survey is shorter and specifically about our Science and Literacy lessons and activities article. The link is at the top and bottom of the article - but sorry, no prizes for that one.

<http://beyondpenguins.nsd.org/issue/column.php?date=August2008&departmentid=literacy&columnid=literacy!lessons>

JessicaFr: We would all appreciate any of you taking one or both surveys at some point in the near future! We can't improve unless we get feedback!

JeffC: here's a redirect for Jessica's last link: <http://snurl.com/litlesons>

JeffC: Water, Ice, and Snow -- Lessons and Activities [beyondpenguins_nsd_org]

JessicaFr: thanks, Jeff.

JessicaFr: Does anyone have any questions for me about the project or the polar regions?

JeffC . o O (easier to type!)

CarolinaDM: no, thank you for all the information, and wonderful resources!

JessicaFr: thank you! This is a record number of participants for us :)

CarolinaDM: it's been a pleasure Jessica

MayraA: Everything was interesting

CarolinaDM smiles

JessicaFr: BJ, can we set next month's event now?

DavidW: Remember, the URLs will be in your transcript (both long and short versions)

BJB2: Watch the Tapped In calendar for the September session of Beyond Penguins

BJB2 nods to Jessica

BJB2: September 4?

JessicaFr: Thursday, Sept 4 at 7? Our next issue is Rocks and Minerals.

BJB2 marks it on her calendar

CarolinaDM thanks everyone for the experience, goodbye to all!

DavidW waves

MayraA: Thanks for your information. I really enjoy it!

JessicaFr: Great! So we'll discuss polar geology next month. We also have some web seminars in the fall through NSTA if you are interested.

MayraA Waves and smiles

DavidW: Good discussion, Jessica

JessicaFr: Thanks - this has been the best by far!

DavidW smiles

DavidW: New people logging in to Tapped In, who teach elementary school, have been excited to learn about Beyond Penguins

JessicaFr: That's great! Getting the word out is the hardest part.

DavidW agrees

BJB2: do you announce your sessions outside of Tapped In, Jessica?

JessicaFr: People can always contact me by email, too - if they want to know more and can't make an event: fries-gaither.1@osu.edu.

SusanR: saw many penguins when we were in South America

LeahHL: Thanks for letting me observe and giving me such a wealth of fascinating information and links! Jessica, it's been great!

JessicaFr: I saw lots of penguins in South Africa, too!

JessicaFr: And thanks Leah! Please feel free to send any feedback!

SusanR: and the baby penguins in Australia

JessicaFr: Scientists are developing a new technology to assign biometric identifiers to penguins (and other species) so they can study colonies more accurately.

JessicaFr: It is still in the works - they are working with a penguin colony on Robben Island, South Africa.

JessicaFr: BJ - I just saw your question. I've been forgetting to post to the blog about them. I will make a note to do that in September!

BJB2: I post to several listserves also

JessicaFr: that's great.

BJB2 goes to take advantage of the last bits of daylight between the storms

BJB2 waves goodnight

DavidW waves to BJ

JessicaFr waves to everyone