

**Title of Session:** Arts and Literacy - The Art of Science

**Moderator:** BJ Berquist

**Title of File:** 20060306artlitscience

**Date:** March 6, 2006

Room: ArtsSites Group

**BjB:** we usually start the Tapped In discussions with introductions

**BjB:** please tell me where you are located and what you teach or hope to teach and what you hope to get from this discussion

**BjB** . o O ( I'll be leading the discussion and am an art teacher in Pennsylvania )

**PMartinGst5:** I am an educational consultant from Texas, I am participating as a part of a doctoral class, but would love to learn new ideas to take to my trainings

**JohannaM:** pre-service teacher, University of Houston 4-8 science, integration of technology

**AndreaM:** From Flagstaff Az. I hope to teach art

**DustinH:** I am from Flagstaff Arizona, and seeking my masters in Education with a cert in secondary. I am an Ceramic artist and anticipate teaching high school ceramics. I am looking for new ideas.

**DavidWe:** I'm David Weksler. I'm a TappedIn HelpDesk volunteer and I lead a math education and technology discussion in TappedIn. I'm in Bucks County, PA, north of Philadelphia

**BjB:** Hi, Mary. We're just doing introductions

**MaryLM:** Hi all I am just browsing to see what this is all about.

**BjB** waves hi to Jeff...just doing intros

**JeffC** nods

**MaryLM:** I work as a TL for Prairie Lands Writing Project

**BjB:** 'what this is all about' is a discussion on arts and literacy in the science classroom, Mary

**BjB:** I led a discussion last Thursday on The Science of Art and had some trouble communicating my definition of the topic...

**MaryLM:** I taught science for 20 yr. Retired now

**MaryLM:** Had kids do biopoems for plants.

**BjB:** don't want to repeat that ...so let's make sure we're all on the same page about what using the arts in science has to do with literacy or with science?

**BjB:** welcome Susan and Maryjane

**MaryjaneH:** Hi

**SusanVa:** Thanks - nice to be here

**BjB:** Mary, can you tell us more about biopoems for plants?

**MaryjaneH:** like, what is a "biopoem?"

**MaryLM:** I did a little creative adjustment to the people bio poem format. Students researched 20 plants and reported using a powerpoint slide show. Then for fun I had them do a biopoem of their favorite plant.

**BjB:** sounds like it was fun!

**MaryLM:** Bio poem is a poem about you. If anyone wants the plant format email me at [lucki13@grm.net](mailto:lucki13@grm.net)

**BjB:** thanks, Mary.

**MaryjaneH:** okay, so bio as in biographical rather than biological?!

**MaryLM:** Yes, Also had the students add a picture of their plant. Printed them

**MaryjaneH:** (I guess it's been a long Monday, sorry)

**BjB:** does anyone else have an example of how you can add the arts to a science project?

**DustinH:** When I was young, I had trouble learning the classifications for animals (kingdom, Phylum, class, order, ETC) my dad taught me a song about our cat that had all of the labels, and examples of what the labels mean. To this day I can still remember the song and all of the classifications.

**BjB** chuckles....how cool!

**MaryjaneH:** since we are on the subject of plants, I had students "create" models of plant parts> we used green construction paper for stamens

**MaryLM:** I don't know the song, but I know another way of remembering.

**MaryjaneH:** clay for pistil and ovary

**MaryjaneH:** yellow, blue, or lilac constr paper for petals

**MaryjaneH:** fishing line for stamens and anthers

**MaryLM:** I like that idea Maryanne

**SusanVa:** You can look at the science of art (colour, light, optical illusions....)

**MaryjaneH:** oops...I mean the green paper was the sepals, not stamens

**MaryjaneH:** we glued beads on the end of the fishing line for anthers

**SusanVa:** A study of flowers could also look at Georgia O'Keefe's work

**BjB:** we did the science of art last week, Susan...the folder of links is under featured items above this chat window

**BjB:** nice connection, Susan

**BjB:** here's another idea

[http://www.eduplace.com/monthlytheme/july/parks\\_activities.html](http://www.eduplace.com/monthlytheme/july/parks_activities.html)

**BjB** . o O ( you could make a flower amusement park )

**BjB:** or what about a microbe zoo? <http://commtechlab.msu.edu/sites/dlc-me/zoo/>

**SusanVa:** Sorry - colouring to me is not art - why not create the mural without colouring in someone else's things

**BjB** . o O ( hold down the ctrl key on your keyboard when you click on the url )

**JohannaM:** Thanks looks like something I could use for my future class

**MaryjaneH:** I like to have students do dioramas for ecology...we take a photo of our environment in fall and make a diorama, then take one in winter, after everything is frozen and snowy, then one in spring, when the birds come back, and one at the very end of school, when the grass has turned green again...

**DavidWe** wonders what Bj has up her sleeves

**DavidWe:** Or video, Maryjane...time lapse

**MaryjaneH:** that's an idea...I haven't tried time lapse video...hmmm

**DavidWe:** Mostly it's editing OUT a lot of stuff

**BjB:** . o O ( or making a digital story to blend the seasons together )

**BjB:** what about doing something 'through the eyes of'?

**BjB:** <http://epic.centersti.com/bee/gallery.html>

**BjB:** . o O ( through the eyes of a bee )

**MaryjaneH:** like, through the eyes of an otter or of a raven?

**DavidWe:** . o O ( my two favorite animals! )

**BjB:** ahhh...raven also gives me another idea, MaryJane...

**MaryjaneH:** otter is my favorite too...they are so playful

**BjB:** <http://earthasart.gsfc.nasa.gov/index.htm>

**DavidWe** has a wonderful web site with photographs of ANWR

**MaryjaneH:** I've actually seen three otters this year...two of them were huge and were together

**MaryjaneH:** ...there is kind of another funny story that goes with it though...

**MaryjaneH:** My golden retriever had run off in the woods with my boyfriend's black lab and the otters were so far away, I thought they were the dogs and I told him "I'm 99% sure I saw the dogs"

**MaryjaneH:** and we walked all the way over there and all we found were otter tracks and otter slides!

**MaryjaneH:** So now he jokes "99% sure huhh?"

**BjB** smiles.

**BjB** sends Maryjane for new glasses

**MaryjaneH** smiles

**MaryjaneH:** (and when we got back, the dogs were sitting on the front steps waiting for us!)

**BjB:** we've discussed showing the ground in various science topics...plants, trees, etc....

**BjB:** what about looking up? <http://www.bbc.co.uk/paintingtheweather/themes/>

**BjB:** or observing paintings to determine what weather is taking place?

**SusanVa:** Another nice art activity is to paint with the pigments of nature (leaves, bark, berries, flower petals)

**BjB:** if you're into clouds, try this Cloud of the Month site  
[http://www.cloudappreciationsociety.org/a/cloud-month/cloud\\_month\\_august.html](http://www.cloudappreciationsociety.org/a/cloud-month/cloud_month_august.html)

**BjB:** good idea, Susan...or create dyes from natural objects

**BjB:** let's go beyond the clouds to the Cool Cosmos  
[http://coolcosmos.ipac.caltech.edu/image\\_galleries/ir\\_portraits.html](http://coolcosmos.ipac.caltech.edu/image_galleries/ir_portraits.html)

**DustinH:** It seems that the artist is portraying the mood of the weather

**BjB:** NASA has some exciting images of the cosmos also  
<http://www.hq.nasa.gov/copernica/>

**DavidWe . o O** ( NASA has the BEST toys )

**BjB** smiles. Yes, they do know how to have fun, David

**BjB:** if we head the other direction to microscopic, you can do some interesting things with <http://education.denniskunkel.com/>

**BjB:** any comments, suggestions or ideas about the sites so far?

**BjB . o O** ( or questions )

**AndreaM:** Wow, these are all new ways of looking at things in our environment . these websties are great bc I am not too familiar with science I would learn a lot from them

**DustinH:** Really neat, I know an artist that paints cells, cancer, and other microscopic things

**BjB:** interesting, Dustin.

**BjB:** much of science is learning how to observe

**SusanVa:** Much of art is learning how to observe!

**BjB:** so it's fun to look microscopically at things and then zoom out and see what the world looks like from a different perspective

**JohannaM:** real great stuff for future class

**BjB** agrees with Susan

**DavidWe:** Medical students in New York City are learning about the "Art of Observation" by looking at paintings at the Frick Collection

**BjB:** I'm just going to throw this next site in to bring in some design...

**MaryjaneH:** I am an Earth Science teacher and much of it really is observing...unfortunately, my own artistic skills are mostly good for making the kids laugh! but they sure can shine when I put their work next to mine!

**BjB:** [http://www.sciencefriday.com/pages/2002/Feb/hour2\\_020102.html](http://www.sciencefriday.com/pages/2002/Feb/hour2_020102.html)

**BjB** . o O ( and this is an audio file so it's a different way of learning )

**DustinH:** That is great, I love when different disciplines can be related to one another, it gives everything more meaning

**SusanVa:** Do you know the powers of 10 site?  
<http://micro.magnet.fsu.edu/primer/java/scienceopticsu/powersof10/>

**BjB** nods to Susan. Thanks

**MaryjaneH:** I really like how the science Friday starts off with some inquiry-type questions

**BjB:** This next site I'm going to show you is going to take some time to explore....

**BjB:** <http://www.learner.org/>

**BjB:** start with The Art of Teaching the Arts

**BjB:** you need to sign up (free) to be able to view the videos, but they're terrific!

**AndreaM:** I have watched many of the video on learner.org. They are so helpful and interesting. They teach you how to effectively integrate different disciplines

**BjB:** one of the videos shows how a dance teacher and a science teacher collaborate in making connections between human anatomy and frog anatomy

**JohannaM:** We are about to study the microscope does any one have good ideas

**BjB:** what do you do when you study the microscope, Johanna?

**JohannaM:** Well I'm doing my student teaching and we are about to get to that section. The teacher I'm assign is just going to do it the traditional way. I will like to change it for my students

**BjB:** anyone have any suggestions?

**MaryjaneH:** what grade level are you teaching Johanna?

**JohannaM:** 6th grade

**MaryjaneH:** if the kids are young...it will take at least one whole class just to get them familiar with operating the microscope...so I would suggest keeping it very simple

**JohannaM:** o.k.

**MaryjaneH:** if possible, it would be neat to try focusing on the things the kids will be looking at ahead of time and if you could get pictures...show them what the item looks at with different magnifications (4x, 10x, etc.)

**MaryjaneH:** show them how to use the "coarse focus and fine focus"

**MaryjaneH:** sometimes they even have trouble just finding the specimen on the slide...show them how to "wiggle the slide around to "trap" the image

**JohannaM:** Thanks for the suggestions

**MaryjaneH:** I remember student teaching 7th graders...my heart goes out to you Johanna!

**BjB** chuckles

**JohannaM:** They are good kids

**BjB:** we have time for one more site...I always like to leave 'em smiling...you'll love this one...

**BjB:** Insultingly Stupid Movie Physics

**BjB:** <http://intuitor.com/moviephysics/>

**JeffC:** I love the Internet... I go and cook dinner... come back... cool link.

**BjB** . o O ( that was my master plan, Jeff )

**MaryjaneH**: It reminds me of that show, "Mythbusters"...one of the few shows I actually enjoy watching

**JeffC**: ok ok... how about some comments on the stupid physics site?

**BjB**: So...a question for you all...did I meet my goal of showing you examples of using art to teach science?

**JeffC**: well... did you show them fractals in nature?

**MaryjaneH**: yes, in unexpected ways..not what I thought it would be

**JohannaM**: Yes, I'm just a bit confused of the last site. How can I apply that

**BjB**: the last site gives you a laugh, Johanna...makes you a better teacher

**MaryjaneH**: you could maybe use it to generate ideas for students to do their own "mythbuster" investigation

**BjB**: or look more closely at movies the kids enjoy

**BjB**: how was science used in the movies and is it true

**MaryjaneH**: actually..I just thought that one up off the cuff but would be relevant, interdisciplinary, good use of technology, real world, and maybe even fun

**JohannaM**: Good way to explore science

**MaryjaneH**: true inquiry...students have to find out if the "myth" is true or not

**BjB**: I have several fractal sites and many more science sites on my backflip page...just didn't want to overwhelm by hurling a zillion urls

**BjB**: [www.backflip.com/members/BjBerquist](http://www.backflip.com/members/BjBerquist)

**DustinH**: BjB I enjoyed the sights, Except I still did not get my password It is also good for students to become aware of truth and taught how to find it. The true education is the skills necessary to find truth

**JohannaM**: no thanks for all the ideas

**AndreaM**: thanks for all the ideas and the time you put into this it will help a lot

**MaryjaneH:** thanks for all the links (I will have to investigate most of them later)

**DavidWe:** Good job, Bj

**BjB:** thanks, David

**SusanVa:** Thanks - enjoyed it

**BjB:** thanks, Susan

**JohannaM:** Bye everyone, thanks

**DavidWe:** Ciao, folks

**BjB** waves goodnight