# of Session: Arts and Literacy - Math 

Moderator: BJ Berquist
Title of File: 20030505artlit
Date: May 5, 2003
2003.05.05 16:01:25Login

Room: ASO
BJ waves hi to Yvonne
BJ: are you here for the Arts and Literacy discussion, Yvonne?
YvonneF: Yes, where is it
BJ: it's here in the After School Online room
BJ: you're the first person to log in
YvonneF: Is that where I am? I'm not used to the new TI environment
BJ nods. Yes, you're in the TI2 ASO
BJ: If anyone decides to join us we can catch them up,
Yvonne. Let's start with introductions
BJ: I'm an art teacher in Pennsylvania and a helpdesk volunteer for TAPPED IN.
YvonneF: Okay, I'm a grad student at George Mason Univ in Fairfax, VA
BJ: cool. Are you a teacher, Yvonne?
YvonneF: No, my degree is in science education. I'm a research assistant at the National Research Council in DC. I want to teach, so I'm back in school
BJ smiles. How exciting!
YvonneF: I'm interested in how students learn concepts, specifically how technology helps learning
YvonneF: But I'm also interested in using "low tech" things, e.g. math manipulatives
BJ: The session tonight is billed as Arts and Literacy Math, but I think you'll see that picture books can be used across the curriculum to facilitate learning
BJ: are you interested in a particular age range?
YvonneF: Yes, I saw that tessellations were on the agenda YvonneF: My background is in secondary education, but as far as learning goes I'm interested in any age
BJ nods. Well, since you mentioned tessellations, let's start with my backflip folder for math....
BJ: http://www.backflip.com/members/bjberquist/5490487
BJ: that is a hyperlink, Yvonne. Click on it to open a new window
YvonneF: Yes, I'm looking at it now
BJ: there are lots of links to math and art there

YvonneF: I guess learning about tessellations paves the way to geometry?
BJ: one of the connections to tangrams and picture books is Grandfather Tang's Story. Tangrams are also a good geometry link. Yes, Tessellations are a good connection with geometry and the relationship of shapes
BJ: I'm going to be using Amazon to share some of the books, Yvonne
YvonneF: A study that I've been helping with at the NRC is on spatial thinking, but $I$ think math has been overlooked a bit
BJ: Here's a link to Grandfather Tang's Story: http://www.amazon.com/exec/obidos/tg/detail/-
/0517885581/qid=1052176399/sr=1-1/ref=sr 1 1/103-37171922768625 ?v=glance\&s=books
YvonneF: I'm there
BJ: I like that you can see a preview of the book
BJ: Ready to continue or do you have questions, Yvonne?
SusanR joined the room.
BJ waves hi to Sue.
BJ: Sue, do you want to introduce yourself to Yvonne?
SusanR waves back!
BJ: I had shared my math/arts backflip folder with Yvonne and had just shown her the book Grandfather Tang's Story to go with tangrams
SusanR: Hi Yvonne. I am Sue Roseman, Occasional Teacher from Ottawa, Ontario and $K$ to 3+ ASO co-presenter here at TappedIn
YvonneF: Hi, Sue.
SusanR: Welcome Yvonne!
YvonneF: Thanks! I've been asking about tessellations and
the connection to learning geometry
BJ: I recommend the Jim McNeil video on tessellations, Yvonne.
SusanR: Kids love learning about tessellations. I have used Suzanne Alexandre's lessons from the Math Forum with a number of classes.
YvonneF: I'm not familiar. Where would I locate one?
Maybe at George Mason U?
BJ: take a look at this:
http://www.jimmcneill.com/demo.html
YvonneF: Do kids learn about scale using them?
YvonneF: By scale, I mean relative size.
BJ: tessellations are related to tangrams, Yvonne. you take a basic shape and divide it into smaller shapes
YvonneF: I'm looking at the McNeil site now. Reminds me of Escher (sp?)

SusanR: That's a neat intro, BJ!
YvonneF: Is scale a difficult concept for $\mathrm{K}-3$ kids?
BJ: McNeill is strongly influenced by Escher. Escher is the father of tessellations
BJ: I think scale as in big/small, more/less is doable for
K-3
SusanR: I teach it as flips, turns and slides. K to 3 students catch onto it quite quickly. YvonneF: Ah, that's like mental rotation.
BJ nods.
BJ . ○ O ( spatial relationships )
YvonneF: Spatial ability is supposedly one area of
learning/skills that is overlooked. Any thoughts?
SusanR: working with concrete shapes and pattern blocks help
BJ: I think that there are many opportunities to facilitate the learning of spatial relationships through
art...tessellations and tangrams are one way...
BJ: and you can go to three-d shapes for older kids
BJ: architecture is also a fun way to work with spatial relationships
YvonneF: Yes, what about origami?
BJ: oh, yes, origami is also a great way!
SusanR: building structures...
BJ: another fun way to learn patterns is to make a quilt YvonneF: Can you think offhand of any resources in North America for teachers that are specifically spatial ability activities?
BJ: let me show you some books that use picture books to teach math and let's see if any of them have what you're looking for, Yvonne...
YvonneF: Great!
BJ:
http://www.amazon.com/exec/obidos/ASIN/0590762508/qid=10521
74483/sr=2-1/ref=sr 2 1/103-3717192-2768625
BJ: This is for grades 1-3
BJ . ○ O ( look inside and you'll see the table of contents )
SusanR: What about weaving patterns using coloured paper strips, Yvonne.
YvonneF: Those look great. I never thought about weaving with paper strips.
BJ: music and poetry are another way to teach rhythm and
pattern. I found a couple poetry books for math
YvonneF: A minute ago, using 3-d with older kids was mentioned. At what age would that be appropriate?
SusanR: I have used that idea in grades one and two!

SusanR: and even three
BJ: depends on how complicated you want to get.
YvonneF: What about teaching volume?
SusanR: It can be as simple or complex as you want it to be!
BJ agrees with Sue.
YvonneF: When I took a course in figure drawing, we looked at the human form as planes.
SusanR: BJ! I like that book! I love integrating math with reading and literature! Great way to introduce new topics in math!
BJ: Here's a fun book: A Remainder of One
BJ: http://www.amazon.com/exec/obidos/tg/detail/-
/0395694558/ref=lib dp TT01/103-3717192-
2768625?v=glance\&s=books\&vi=reader\&img=4\#reader-link
SusanR: Neat!
YvonneF: Yes, great illustrations
BJ: this team also did One Hundred Hungry Ants which is delightful
BJ: http://www.amazon.com/exec/obidos/tg/detail/-
/0395631165/ref=pd sim books 1/103-3717192-
2768625 ?v=glance\&s=books
BJ: Here's a book that connects math standards with picture books
BJ: http://www.amazon.com/exec/obidos/tg/detail/-
/0439318890/qid=1052178838/sr=1-1/ref=sr 1 1/103-37171922768625 ?v=glance\&s=books
BJ . O O ( take a look at the table of contents for this book. )
BJ: This next url is to a list of books to read aloud to kids 9 and up...
BJ: http://www.amazon.com/exec/obidos/tg/listmania/list-browse/-/386T6VUP68QL0/ref=cm lm lists/103-3717192-2768625
YvonneF: I like the idea of reading out loud.
BJ: this next book is probably mentioned several times, but
I wanted to point it out...it's fun
BJ: http://www.amazon.com/exec/obidos/tg/detail/-
/0670861944/ref=pd sim books 2/103-3717192-
2768625 ?v=glance\&s=books
BJ . ○ O ( Math Curse by Jon Scieszka, illustrated by Lane Smith )
SusanR: Excellent resources, BJ! I recommend "Math Curse" BJ: one more resource before our time is up... SusanR: Is there anything out there on fractions?
BJ: the Eisenhower National Clearinghouse is a treasure trove of information

BJ nods to Sue...the book with standards had a section on fractions, I think
YvonneF: These are great! Will I get both transcript sections, since I crashed before?
BJ nods to Yvonne
BJ: ENC is at www.enc.org
BJ: Here's a good one for fractions:
YvonneF: I've seen ENC and agree, it is a great resource. BJ: http://www.amazon.com/exec/obidos/tg/detail/-
/068813985X/qid=1052179374/sr=1-1/ref=sr 1 1/103-37171922768625 ?v=glance\&s=books
SusanR: I happen to be teaching fractions this week!
BJ: that's a link to Each Orange Had 8 Slices
YvonneF: Good idea to use oranges. Less messy than pizza BJ smiles
YvonneF: Thanks so much for all the info. My computer is behaving badly. I should say goodbye before I crash.
SusanR agrees
BJ: thanks for joining me tonight, Sue and Yvonne
YvonneF: Bye, and thanks again.
Yvonnef left the room.
BJ: I hope you found the information useful
SusanR: Thanks BJ! Lots of helpful resources! Amazon.com is quite a resource!
BJ agrees.
SusanR: Goodnight BJ
SusanR left the room (signed off).

