Title of Session: Arts and Literacy - Math

Moderator: BJ Berquist Title of File: 20030505artlit

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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 1/103-3717192-

2768625?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?)

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SusanR: That's a neat intro, BJ!
YvonneF: Is scale a difficult concept for 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 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
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 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!
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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

 $\mbox{\rm BJ}$. 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 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 1/103-3717192-2768625?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).