

JR IDEAS SAVES

THE
NEWSLETTER
OF
THE
ONTARIO
ASSOCIATION
OF
JUNIOR
EDUCATORS

JANUARY
2012



Essentially Science & Technology

In coming issues we will be featuring strategies and teaching ideas from OAJE's newest resource, Essentially Science and Technology. This 20 book series provides practical, hands-on teaching ideas and plans for all of the grade 4-6 science and technology strands - and, AS AN ADDED BONUS - separate units for teachers who are working with combined grades.

The combined grade units provide teachers with all that they need to effectively provide each group of students with the unit of study for their grade level, while focusing on common skills found across the curriculum.

All of the units recognize that teachers in the Junior grades do not have access to fancy scientific equipment, and provides practical classroom activities using materials found around the school, your home or in a local drug or dollar store.

Individual units can be purchased - or the entire series can be LICENSED by your school board to be used by all teachers in your system - the most cost effective way for providing support and assistance to Junior level teachers with their science and technology programs.

Essentially Science and Technology can be ordered from or licensed through Pearson Education at www.pearsoncanadaschool.com



The folks at OAJE would like to offer all of our members best wishes for a healthy, happy and professionally rewarding new year.

The work that you do - day in and day out - is so important to our collective future. So, in the coming weeks and months - stay strong, be positive and enjoy life to the fullest.

Teaching with Heart: The Caring Classroom

Saturday March 3rd 2011

9:00 a.m. to 2:00 p.m.

Charles Sturt University Campus
860 Harrington Court, Burlington ON



Information about how to register for this conference will be featured in an upcoming newsletter.

Classroom-ready Ideas for Teachers of Grades Four Through Six

JOIN OAJE
FOR
FREE!

The Ontario Association of Junior Educators (OAJE) provides a network for education professionals to share ideas and resources, to assist and support teachers and to advocate on behalf of students and teachers in the Junior grades.

Members of OAJE receive a newsletter outlining news, events, conferences and teaching tips. They are also invited to provide input, information and opinions for the Ministry of Education about issues of importance to Junior Division teachers. And, by joining, you will be sure to receive all future editions of this newsletter, along with lots of other valuable teaching ideas.

To become a member of OAJE, simply register online at <http://oajemembership.eventbrite.com>





If we want to help young people live with integrity and compassion, we need to introduce strategies and resources that help students come to an understanding of the complex world of bullying. We need to help students understand why a bully behaves the way he or she does, and we need to provide students with strategies to prepare themselves if they are caught in the bully web.

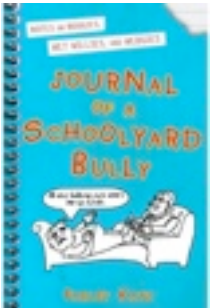
Reading and discussing literature are powerful tools for preparation.

Through fiction, students can make connections to the 'real world'. In this way, the characters and relationships and problems offered by an author can prompt students to consider how a story's events remind them of those that may have happened to them or someone they know. Moreover, readers can ask themselves, "What would I do?" and, in this way, they are working towards an understanding of building better relationships.

In this month's OAJE newsletter, Dr. Larry suggests ten novels for students in grades four through six that deal with the issue of bullying. Some humorous, some tough, each of the books offers insights on the complexities of dealing with bullies.

Dr. Larry Recommends . . .

Books that Help Confront the Bully Issue



Journal of a Schoolyard Bully: Notes on Noogies, Wet Willies and Wedgies

by Farley Katz (2011)

Schoolyard bully, Niko Kaylor, is forced to keep a journal to right the wrongs he's committed. Using a "Wimpy kid" style, with illustrations, Katz explores the world of middle school life and the pains of schoolyard cruelty.



Larger than Life Lara

by Dandi Daley Mackall (2006)

Mackall frames the story in a clever format. Using the writing techniques she has learned in school, a fourth-grader relates how an obese girl in class changes the lives of those around her, despite being bullied by her peers.



The Field of Dogs

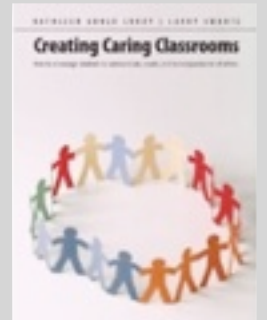
by Katherine Patterson (2001)

Not only does Josh need to deal with a bully when his family moves to a new neighbourhood, but his dog is also facing a bully of his own with the neighbourhood gang of canines.

Creating Caring Classrooms

(by Kathleen Gould Lundy and Dr. Larry Swartz)

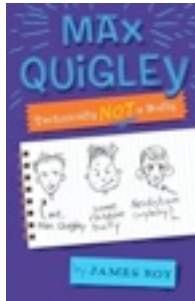
Available from Pembroke Publishers
www.pembrokepublishers.com





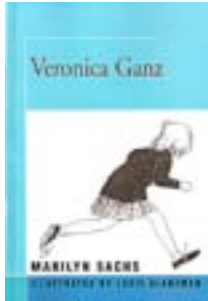
Egghead by Caroline Pignat (2008)

This novel, for mature readers, considers the implications of not being a bystander - and standing up for your friends, as seen through the eyes and struggles of three young adolescents.



Max Quigley: Technically Not a Bully by James Roy (2009)

Roy, an Australian author, provides a humorous flavour to the bully world in this story about 6th grader Max Quigley who's 'punishment' for his bully behaviour is to be tutored by the classmate he picked on.



Veronica Ganz by Marilyn Sachs (1968)

This 40+ year old title deserves mention (I read it when I was in my pre-service teacher ed program), because it deals with a girl bully who is determined to show the kids in her class who's boss.



Scrawl by Mark Shulman (2010)

Todd Munn is a bully, but times are tough. The wimps have stopped coughing up money and the school administration is cracking down. In his daily detentions, Todd must confront his behaviours through daily writing/scrawls. For mature readers.



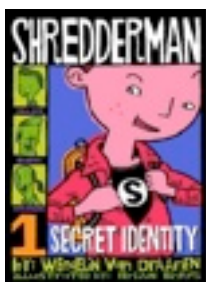
Feather Boy by Nicky Singer (2001)

Robert is the class victim - never picked for the team. When Robert bravely is sent to solve the mystery of a derelict house, he learns to be brave, be strong and to confront the past to deal with the future.



Loser by Jerry Spinelli (2002)

The Newberry Medal winning author wrote this novel a decade ago, but it stands up as one of the best novels dealing with the issue of bullying - by telling the story of 'never-a-winner' Zinkoff, as he travels from first through to the sixth grade.



Shredderman: Secret Identity (series) by Wendelin Van Draanen (2004)

Even teachers and principals can't seem to stop Bubba Bixby, school bully, but Noal thinks a superhero is all it would take to make Bubba behave.


Percent Poetry

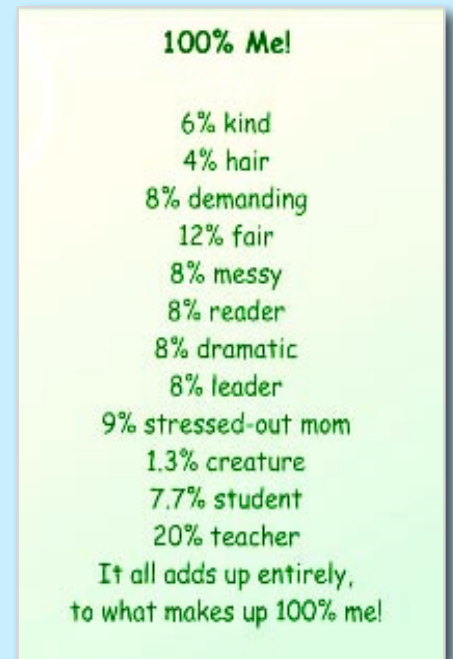
I saw a wonderful lesson the other day. It integrated mathematics, poetry, and visual arts into a simple but effective project for students to represent themselves mathematically and visually. It was also introduced using the SMART Board (see link below). The project is a good back-to-school activity to help students and teachers learn more about each other.

It can also be easily adapted as a review or part of a culminating task to summarize key points about an issue or topic in any subject. For example, write a percent poem about Canada, the role of government, the importance of space exploration, the value of friendship, the impact of media, to define human organ systems or any other topic. Use it at the beginning and end of a unit as a comparison.

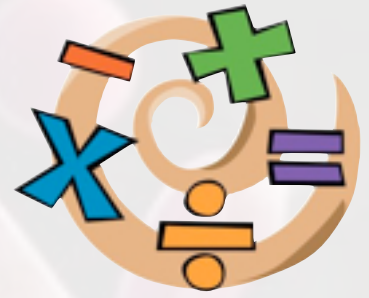


Students:

- View and discuss the attributes of a percent poem from the SMART presentation or other sample
- Brainstorm a list of characteristics about themselves (or other topic)
- Assign different percentages to each characteristic and discuss the reasons why. The percentages need to total 100%. This in itself is an interesting computational task.
- Create a poem from the characteristics taking the idea of the original, but rather than simply replicating the structure make it more powerful by deciding on:
 - the best ideas to portray the general message and tone for the desired audience
 - word choice to best express those ideas
 - an appropriate pairing of ideas to complement or contrast and create interest
 - beginning, ending and overall sequence or organization
 - possible rhyming or rhythmic structure for an appropriate connection of ideas
 - strong voice
 - a unique title
- Then create a stacked bar graph to represent each percentage. This is again an interesting challenge to make sure each section of the bar is represented accurately and fits into 100%.
- Finally, illustrate it as visual art that can draw on literal or figurative representations of the ideas and focus on a particular element or principal of art. The graph can be cut in all kinds of ways and rearranged aesthetically. It may also be used as the basis of interpretive performance arts.
- Share the results and strategies used in each phase of the project and you have great lessons to build skills and develop critical and creative thinking.



MATH GAMES



CRAZY QUILT

In this two player game, each player constructs geometric shapes worth different points from triangles on a game sheet. They use logical strategies to create them while blocking their opponent. The game is challenging. Thinking strategies are vigorous. The results are worthy of framing. A SMART Board version of the game can be found on the OAJE website www.oaje.org

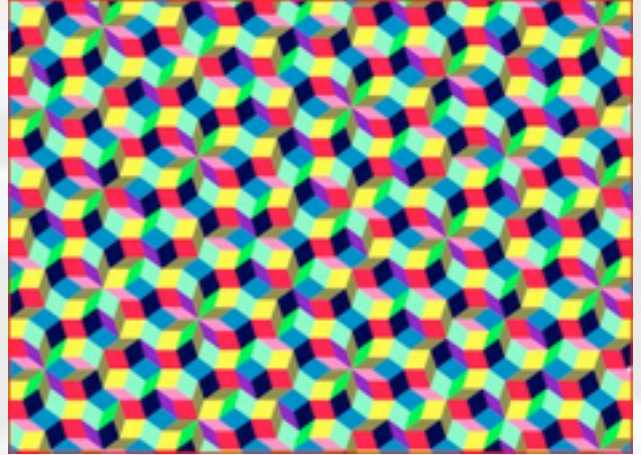
Materials

- 2 different-coloured pencils or markers (1 for each player)
- Copy of the Crazy Quilt Game Sheet or the SMART Board file

To Play Crazy Quilt

Play with a partner. The object of the game is to score more points than your opponent by completing more four-piece shapes with different point values.

1. Each player chooses a colour for their marker or coloured pencil.
2. The first player colours any single small triangle on the outer part of the board (the twelve outside squares)
3. The second player colours a single small triangle in the inner part of the board (the four inner squares).
4. From there, players take turns alternately colouring a triangle anywhere on the grid in an attempt to create one of the four shapes in their colour. They count points as they go.
5. The game ends when the grid is completely filled or when neither player can score further.



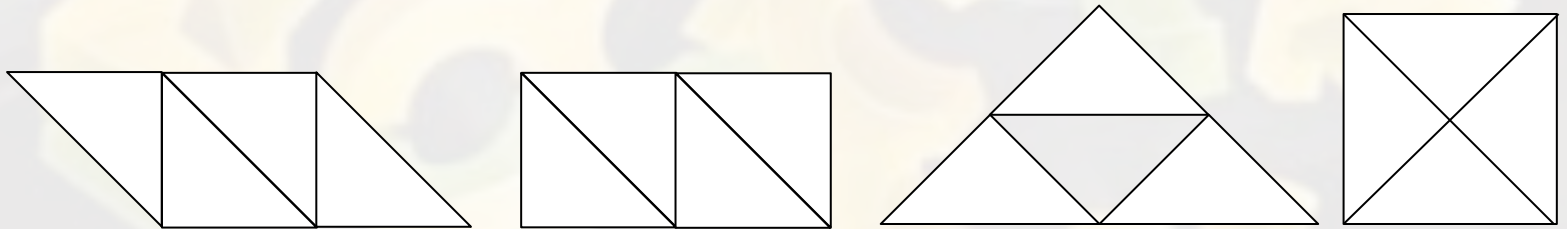
Tips to Emphasize the Math and Thinking Strategies

Many interesting problems arise during this game. There are many shapes within shapes, and they all count. Any given triangle can be used again as a part of any new shape to which it is connected. One move can result in more than one shape being created. Encourage students to articulate what the options are and how they are deciding on the actual moves. Instead of playing with two players, play with two teams of two to help each team orally reason through the strategies for each move. Share and compare strategies and observations after the game.

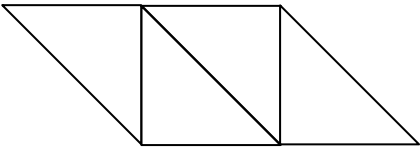
Extensions

Change the rules to give different values to the shapes. How does this affect strategies? How else can you modify the game?

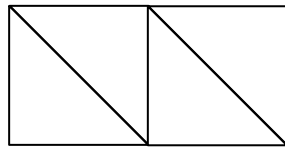
* This game is adapted from *Home Connections*, by the Halton District School Board Numeracy Team. Adapted with permission.



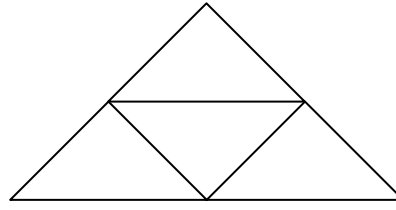
Crazy Quilt Game Sheet



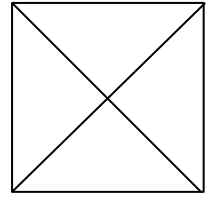
Parallelogram = 1 point



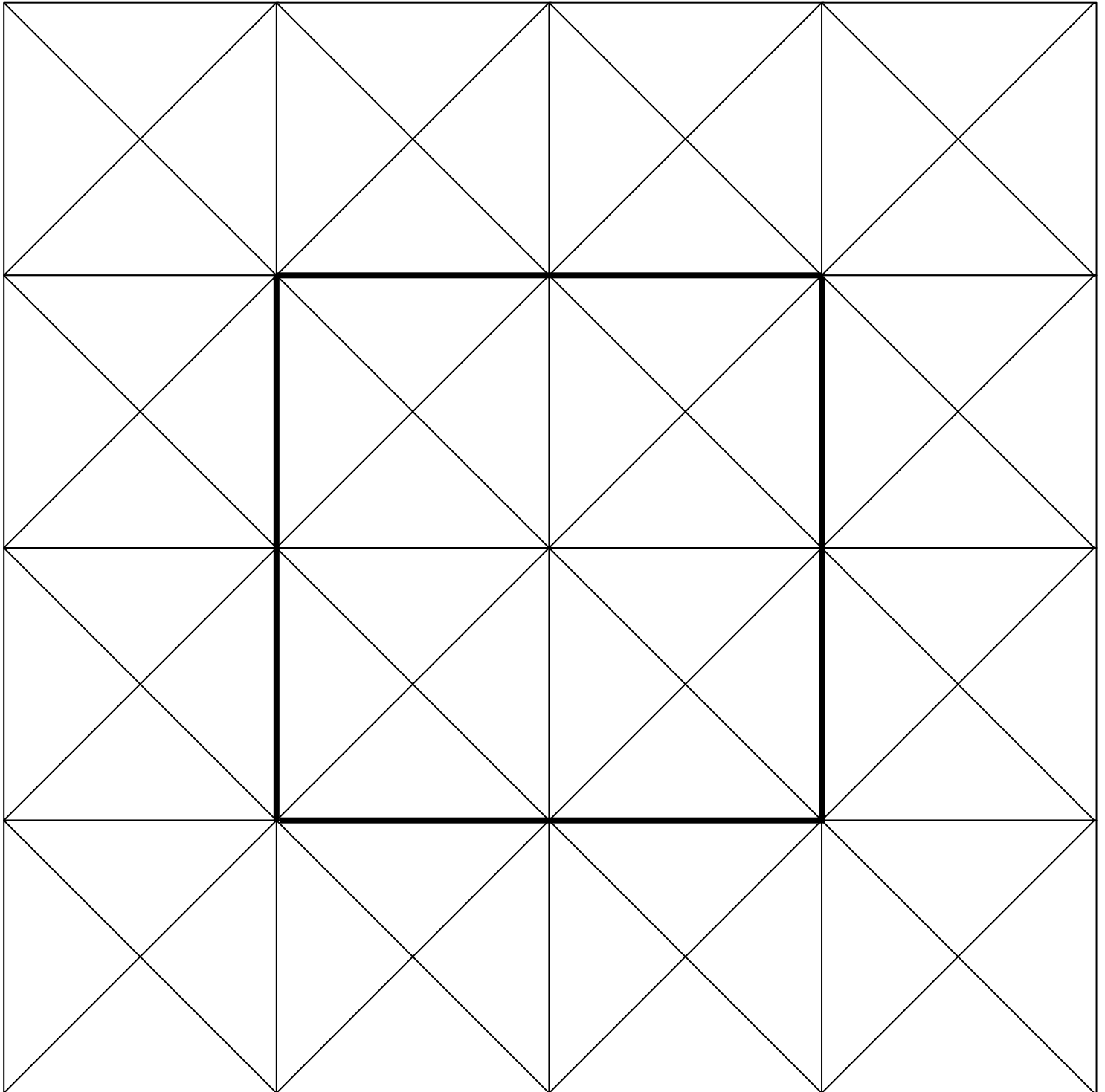
Rectangle = 2 points



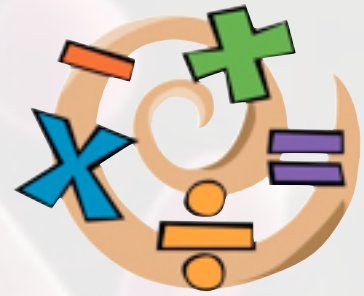
Triangle = 3 points



Square = 4 points



MATH GAMES



THREE-IN-A-ROW

Three-in-a-Row (Whole Numbers) is a game of strategy that involves simple addition. While finding winning strategies, students examine related addition facts. Although Three-in-a-Row (Equivalent Fractions) is really a simple matching game that doesn't involve the strategies of Three-in-a-Row (Whole Numbers) it still provides the chance for students to practice making equivalent fractions in a social game situation allowing students to communicate and challenge each other if an answer is questionable using some of the mathematical processes.

Materials

- A two player game (or two teams of two)
- Game sheet (next pages)
- 2 Paper Clips for Three-in-a-Row (Whole Numbers)
- Two dice for Three-in-a-Row (Equivalent Fractions)
- 8 coloured discs or game pieces per player, a different colour for each player

To Play Three-in-a-Row (Whole Numbers)

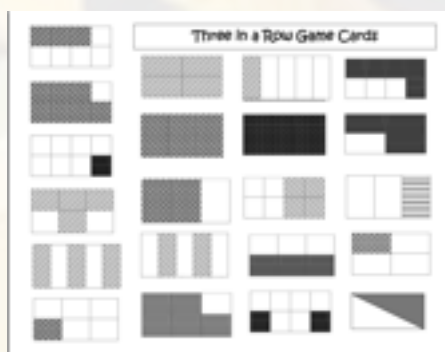
- 2 players are given 8 game pieces per player.
- Player one places 2 paper clips on any 2 numbers from 1-10 on the bottom portion of the game sheet. Both clips can be on the same number.
- Add the 2 numbers.
- Place a game piece on a corresponding number on the game sheet. Only 1 game piece is placed per turn. For example, a player cannot place a piece on both spaces marked 8 in a single turn.
- Player two moves just one paper clip to a new number (there can be 2 clips on 1 number) and places their game piece on the corresponding number.
- Continue taking turns by moving a single paper clip and capturing the space on the game sheet.
- Get 3 in a row in any direction to win.

To Play Three-in-a-Row (Equivalent Fractions)

- 2 players are given 8 game pieces per player.
- Player one rolls 2 dice to make a fraction (e.g., 2 and 6 makes $2/6$).
- Place a game piece on an equivalent fraction on the game sheet.
- Players take turns rolling the dice and placing game pieces on the sheet.
- A player may bump the other player if they occupy same space.
- Doubles lose a turn.
- Get 3 in a row in any direction connected by lines to win.

Variations

- An interesting on-line variation that also has a printable game sheet can be found at <http://rich.maths.org/5911>. It involves integers which don't appear until grade 7 in the Ontario mathematics curriculum.
- The fraction game can be played with cards that illustrate different fractions. See <http://mathgames.edublogs.org/files/2009/03/three-in-a-row-35.pdf>
- For an investigation of variations of this game using multiplication and a lesson series with online interaction, the Product Game <http://illuminations.nctm.org/LessonDetail.aspx?ID=U100>



Three in a Row (Whole Numbers)

7	17	12	9	4
19	2	8	6	14
13	6	11	12	8
5	18	16	3	15
20	10	11	9	14

1	2	3	4	5	6	7	8	9	10
----------	----------	----------	----------	----------	----------	----------	----------	----------	-----------

Three in a Row (Equivalent Fractions)

