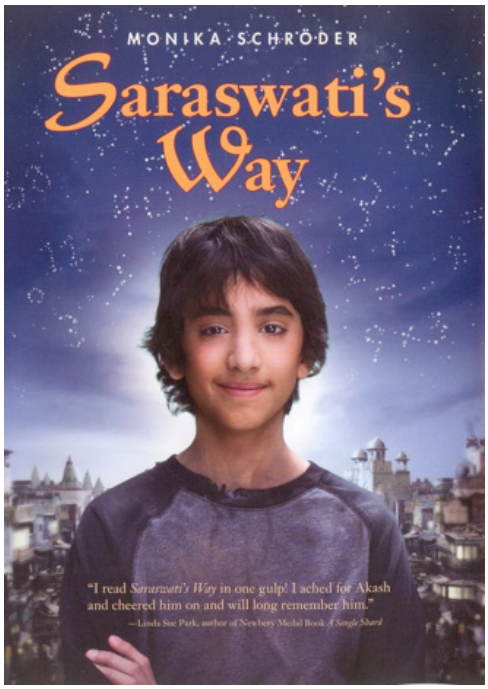

Teaching Guide
for using *Saraswati's Way* in the classroom

Five interdisciplinary lessons for grades 5 to 7

About the Book

12-year old Akash from the northern India state of Rajasthan, loves math. In order to develop his gift for numbers Akash wants to go to a good school in the city. But Akash's family is poor and doesn't understand his longing for learning. He prays to the Hindu gods Ganesh and Saraswati for help. When circumstances become so dire that his dream seems forever unattainable he runs away and jumps on a train. He ends up in the New Delhi train station, where he joins a gang of street kids who scavenge trains for food and earn a few rupees selling empty water bottles until he finds the support of a kind bookstall owner to realize his dream.

Reviews and Recognition

"This rare combination of math and culture is a boon for discussions and makes this stand out."
Kirkus Reviews

"With skillfully integrated cultural details (further explained in an appended glossary and author's note) and a fully realized child's story, Schröder presents a view, sobering and inspiring, of remarkably resilient young people surviving poverty without losing themselves."
Booklist

"Akash is an appealing hero for this urban survival story, driving the tale through dangerous situations and unlikely comrades to a happy conclusion."
Horn Book

CCBC Choice 2010 (Univ. of WI)

NCSS Notable Social Studies Tradebook for Young People

A Bank Street College - Best Children's Book of the Year

2010 SCBWI Crystal Kite Award for Asia/India/ Middle East

Monika Schröder
Children's Author

Saraswati's Way
Frances Foster Books/Farrar Straus Giroux
ISBN: 978-0-374-36411-3
ages 10 and up

Created by Molly O. Smith

Saraswati's Way Teaching Guide

Introduction

Invite your students into Akash's world with this complete guide of interdisciplinary lessons for the novel Saraswati's Way. You will find five distinct, but connected lessons adaptable for grades 5-7, which employ math, reading, writing and social studies to bring Monika Schröder's novel alive for your students. This guide is designed for the classroom teacher, but is adaptable for GT teachers, reading teachers, special educators, librarians, homeschoolers and other educators at heart.

The lessons are all in sync with a philosophy of differentiation that allows learners various avenues to access and share information, experiences and ideas. You'll find that the student-centered lessons emphasize higher level thinking skills, a true spirit of inquiry and authentic, relevant learning opportunities to keep kids engaged. In these lessons, student choice and input are the key to real learning.

How is each lesson organized?

The lessons are organized into sections, which provide information and guidance for the teacher as he moves through the learning experience with his students. The meat of the lesson (from *Preassessment* to *Wondering*) is also labeled with the appropriate level of Bloom's Taxonomy in parentheses. See the resources below for more information about the *revised Bloom's Taxonomy and how to use it with your students.

Getting Prepared: Materials & Handouts
- *lists the things you'll need to copy, collect or prepare in advance*

Guiding Questions
- *states the questions that guide the learning in the lesson; Post these questions to allow students to see the purpose for their learning and give them an anchor for new knowledge.*

Learning Standards
- *lists the national standards addressed in the lesson as well as the source for the standards*

Introduction
- *introduces the main focus of the lesson through the lens of the novel, Saraswati's Way , including a quotation from the book to highlight the connection*

KuDo's
- *states what students will **K**now, **U**nderstand and **D**o by the end of the lesson. [Note: Diane Heacox introduces the acronym in her useful guide, Making Differentiation a Habit: How to Ensure Success in Academically Diverse Classrooms (Free Spirit Publishing, 2009).]*

Pre-assessment (Remembering)
- *uncovers prior knowledge and gives the teacher the chance to see where each learner stands at the start of the lesson*
- *provides valuable information for the teacher as she prepares to differentiate the learning experience, content, environment or materials for her students.*

Teaching, Learning & Thinking

Warm-up (Understanding): *establishes a basic understanding of the content of the lesson.*

Groups/Pairs (Applying & Analyzing): *students apply their new understanding & analyze the results to cement their learning*

Check in (Evaluating): *The teacher checks in with students to see where they are in the learning process; gives students the chance to reflect on their own level of understanding*

Wondering…next steps (Creating)

- *creates relevance and further meaning for students by inviting them to share more curiosities about the topic(s) being explored*

Something to chew on…

- *leaves students with a lingering question to mull over, keeping the spirit of inquiry alive!*

Bloom's Taxonomy Resources:

A Taxonomy for Learning, Teaching, and Assessing : A Revision of Bloom's Taxonomy of Educational Objectives by Anderson, Lorin W.; Krathwohl, David R.; Bloom, Benjamin Samuel; Airasian, Peter W.; Cruikshank, Kathleen A.; Pearson Education; 2001

- **Bloom's Revised Taxonomy site** – a variety of visuals and tools utilizing Bloom's Taxonomy from the Kurwongbah State School in Australia
- ***Teaching with the revised Bloom's Taxonomy*** – workshop materials
- **The Blooming Orange** – an interactive poster for kids to apply Bloom's Taxonomy in their thinking, writing and questioning

Who created this teaching guide?

Molly Smith has been teaching for twelve years from Massachusetts to Maine and has her masters in gifted education. She currently works with gifted learners, collaborates with teachers to support differentiation in the classroom and connects all kids with resources to feed their passions. Contact: molly_smith@yarmouthschools.org

LESSON 1 – Fractions: from the quarry to the cosmos

Getting Prepared: Materials & Handouts

- Exit slip for lesson 1 – designed as a half sheet, so there are two copies per page
- Paper
- Fraction bars (or other similar fraction manipulatives)
- Challenge sheets & challenge keys for each group

Guiding Questions:

- When dividing, how is it helpful to understand fractions?
- What happens to the appearance and value of fractions as you divide them continuously?
- What is the smallest possible fraction?

Common Core Standards:

- Grade 5: Number & Operations 5NF - *Apply and extend previous understandings of multiplication and division to multiply and divide fractions.*
- Grade 6: The Number System 6NS - *Apply and extend previous understandings of multiplication and division to divide fractions by fractions.*
- Grade 7: The Number System 7NS - *Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.*

From the Common Core State Standards Initiative at http://www.corestandards.org/the-standards

Introduction:

In Saraswati's Way, Akash finds comfort in familiar numbers and patterns, especially when things get tough. When he is forced to work at the quarry, chiseling slabs of stone, he gets lost in thought as he imagines what will happen to the size of the stone as he continues to cut it evenly. "In his mind Akash continued to divide the stone into smaller and smaller fractions. Which would be the smallest possible number?" (Schröder 62).

KUDo's

- Students will KNOW: fractions, denominator, numerator
- Students will UNDERSTAND:
  - Fractions can be infinitely divided in half
  - The denominator of a fraction increases as the value of the fraction decreases
- Students will DO: explain/demonstrate why the denominator of a fraction increases as the value of the fraction decreases

Preassessment (*Remembering*)

Time: 2/3 minutes

- Entry slip: At the start of class, hand kids the entry slip and give them a quick minute or two to fill it out. Entry slips are designed as a dipstick – what do the kids know already? Share this purpose with the kids so they do not mistake it for a test or for an expectation that they already know all of the "answers". Students are invited to guess as well as to leave things blank if they don't have any ideas at all.

- Collect the slips after only a minute or two and take a glance at the results to sift kids into three groups based on their understanding of fractions. The kids can work on the warm-up while you're doing this. Your goal is to create rough groups for the kids to chew on similar questions and concepts. Your groups will vary based on your class, how much work they've done with fractions in the past and what time of year it is, but following is an example of how you might divide the kids into three groups based on their entry slips. Remember that the groups need not be of equal size because they're based on need.

- Students who provide fractions of the correct values for the first three questions and demonstrate a clear understanding of how fractions are helpful when dividing will be in one group (we'll call them group ½ - why not? We're working with fractions, right?! The kids in this group will appreciate the quirkiness of their group number). Students who demonstrate an understanding of what a fraction is by providing a fraction for the first prompt and have an idea about the connection between fractions and dividing, but are not quite sure how to create fractions of different values should be in another group (group 1). And students who guessed incorrectly, left things blank and do not have a grasp of how to compare fractions at all will be in another group (group 2).

Teaching, Learning & Thinking

♦ Warm-up (*Understanding)*:

Time: 10 minutes

- Read the introduction to this lesson to the class and then post it on the board or overhead so all students can see. Include these instructions: *Use a blank sheet of paper to draw a square stone and "chisel" it into even pieces by tearing it (approximate tearing is fine, no need to cut perfectly evenly), until you cannot divide them anymore. For example, you will start by tearing your paper in half and then into fourths, etc… What fraction of the original stone is your smallest piece? Do you think that is the smallest possible fraction of stone that could be chiseled? EXPLAIN.* Each student should use their own piece of paper to divide, but will work with partners or small groups of 3 or 4 to discuss the answers to the two questions. One person should record the answers to share.

- Discuss their thoughts and answers. How did students determine what fraction of the original "stone" their tiniest piece was? Why do they think their tiniest piece is or is not the smallest possible fraction they could "chisel"? Let the students take the lead in the conversations. They will get a chance to test their ideas in the next part of the lesson to help them decide whose theory proves correct.

♦ Do a quick check-in about the meanings of the essential terms (fraction, denominator, numerator) to make sure you're all on the same page.

Time: 1 – 3 minutes

♦ Groups (*Applying & Analyzing)*:

Time: 10 – 15 minutes

- Divide students into your three groups. Each group will expand their understanding of fractions, but in a different way. Give each group their challenge sheet and any *necessary materials. Decide what works best for each group: pairs, 3's or even the whole group

together if it is small. Let students know that your role will be as a facilitator. You'll mingle around the room to clarify directions, ask thoughtful questions and provide encouragement. Once a pair/group has done their best to tackle their challenge, then they should go to the assigned spot in the room to compare their answers to the key. If there are any differences, students should go back to their seats and think backwards from the real answer – how might that answer be correct?

- Have a group that finishes early? Then give them a more difficult challenge to dive into! The websites linked to the STRETCH portion of the challenge for group ½ are applicable and interesting for all learners!

*NOTE: Group 2 – Provide them with some manipulatives that show fraction size, such as fraction bars.

Check in (*Evaluating*)

Time: 2 minutes

Give the groups a one-minute reminder. Then ask them all a few check-in questions. They can respond with a thumbs up for yes/got it/I agree, a thumb to the side for kind of/maybe, or a thumbs down for no/I disagree/totally confused. You may do this with eyes open or closed depending on your sense of your students' comfort level.

*I understand how to divide a whole into fractions.
*As the denominator gets larger, the value of the fraction gets smaller.
**You can divide fractions in half forever and never find the smallest piece.

**If there are still students who are unsure or disagree with these statements, pull them aside to clarify and illustrate the concepts for about 5 minutes at another time.*
***If there are still students who are unsure or disagree with this statement, challenge one or more of these kids to start on one side of the classroom and walk towards the other side of the classroom, walking half the distance between themselves and the opposite wall each time. Will they ever reach the other side? Why not?*

Wondering…next steps (*Creating*) – create relevance for your students

Time: 10 minutes

- Have the kids pick a partner whom they have not worked with yet today to tackle the final question:

So how do we explain or show WHY the denominator of a fraction increases as the value of the fraction decreases?

- Ask each pair to brainstorm objects that they commonly divide into smaller pieces (food, clay, paper, groups of people…), then pick one item and find a way to answer the question. They must pick a mode of communication: draw, sing, dance, act, charade style (silent demonstration)… to share their answer. Encourage them to have fun and be creative teachers! They have about 5-7 minutes to formulate an answer. Then, they must pair up with another pair of students and share their answer. This is your chance to walk around and see who really understands the concept and who is still a bit fuzzy. If there are some kids who are still unclear, then ask one or two pairs of kids who have clear and interesting answers to share with the whole class.

Time: 3 minutes

- Cool down – what are you curious about? Prepare for a shower of questions! Invite kids to shower you with questions that express their wonder about fractions, Akash, stone quarries, life in India… (NOTE: if you wear a shower cap for this, you will have more fun and the kids will LOVE it!). The goal is not to answer the questions, but to emphasize to the kids that learning is ongoing, learning creates more opportunities to wonder and inspires more learning! This is a wonderful way to set the tone for the rest of the lessons since you'll be exploring the book's setting, characters and plot in a variety of ways. This activity will grab students' interest and make them feel more invested in the learning that goes on around this novel. Invite the kids to track down answers to any of the questions they had or heard from others to bring back to the group. OR see "something to chew on"…

Something to chew on

Read & post this question for the students to mull over:

In what ways do scientists, mathematicians and engineers write very small fractions or decimals to describe measurements, objects or organisms that are even too small to see?! *Think, guess, poke around for information, record it and then bring it back to share!*

CHALLENGE! – (key)

Put yourself in Akash's shoes for a moment. You have been given the responsibility of working off your family's debt to keep your house. You want to help your family, but you're angry about being sent away and the work is tough. You feel grateful to have a friend like Anant to show you the ropes and keep you company, but you soon realize that your hard work will never pay off your family's debt. Think about this: *How would you feel about helping your family while sacrificing your own dreams? How would you feel about discovering that no amount of hard work could pay off your family's debt?* **Share your thoughts with your group – all answers are welcome!**

Today, your task in the quarry is to divide the stone block into equal sized chunks.

- When you just "chiseled" your "stone" (i.e. tore your paper) in half again and again during the warm-up, you ended up with more pieces each time while each piece was smaller than the one before. How many pieces did you get when you divided it in half:
  - 2 times? _4____
  - 3 times? __8___
  - 4 times? __16___
  - 5 times? __32___

Discuss with your partner/group:

- What is happening to the number of pieces the more you divide the paper?

The number of pieces is increasing the more times I divide the paper.

- What is happening to the denominator of the fraction that represents each piece the more you divide the paper?

The denominator is increasing each time I divide the paper.

- What is happening to the size of the pieces the more you divide the paper?

The size of the pieces is decreasing.

- What is happening to the value of the fraction that represents each piece the more you divide the paper?

The value of the fractions is decreasing the more I divide the paper.

- So what is the connection between the changing denominator and the changing value of the fraction?

SO as the denominator of the fracture increases, the value of the fraction decreases!

Ahah!! You have uncovered the mystery of the growing denominator!!!

Now write some fractions that are smaller (worth less) than ¼ : *tons of answers! For ex., 1/8, 1/16, 1/32*
Write some fractions that are larger (worth more) than ¼ : *a few answers – ½, 1/3*

S-T-R-E-T-C-H your thinking -

- How many times would you need to cut the stone(s) in half to get 128 pieces? __*7 times*____
- In order to be able to cut a stone into that many pieces (without extremely expensive lasers and cool safety glasses), then how big do you think the original stone would have to be? Explain and/or draw & label to show your thinking. *answers will vary – who has given the best argument or evidence to back up their opinion?*

CHALLENGE! (student sheet)

Put yourself in Akash's shoes for a moment. You have been given the responsibility of working off your family's debt to keep your house. You want to help your family, but you're angry about being sent away and the work is tough. You feel grateful to have a friend like Anant to show you the ropes and keep you company, but you soon realize that your hard work will never pay off your family's debt. Think about this: *How would you feel about helping your family while sacrificing your own dreams? How would you feel about discovering that no amount of hard work could pay off your family's debt?* **Share your thoughts with your group – all answers are welcome!**

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  - 2 times? _____
  - 3 times? _____
  - 4 times? _____
  - 5 times? _____

Discuss with your partner/group:

- What is happening to the number of pieces the more you divide the paper?
- What is happening to the denominator of the fraction that represents each piece the more you divide the paper?
- What is happening to the size of the pieces the more you divide the paper?
- What is happening to the value of the fraction that represents each piece the more you divide the paper?
- So what is the connection between the changing denominator and the changing value of the fraction?

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Today, your task in the quarry is to divide the stone block into equal sized chunks. But you quickly fall under the mesmerizing power of fractions. In your mind, you "divide the stone into smaller and smaller fractions. Which would be the smallest possible number?...The denominators [are] getting larger but the fractions [are] getting smaller and smaller. There [is] no end to this series of numbers. It would go on indefinitely. [You] want to lie on [your] back, close [your] eyes, and follow the pull toward the infinite. [You have} taken imaginary trips to this void before when looking up at the night sky, following countless stars, envisioning the endless cosmos." (Schröder 62)

Talk amongst your group and record your thinking:

- Why does the series of numbers go on indefinitely? *No matter how many times you divide a fraction in half, you can still divide it again. The denominator keeps doubling and there is no end to numbers, so it can keep increasing.*
- What does the word "infinite" mean when we use it in math? (don't know? Look it up!) *In math, we use the term "infinite" to mean a pattern, series or numerical change that continues to grow or shrink indefinitely; something that is impossible to count or measure*
- Is the cosmos really endless? Explain *Well, according to the definition, yes, because it is impossible to count the number of starts in the universe. On the other hand, there are current scientific theories about the "edges" of the universe that indicate some sort of boundary, so perhaps the size of the universe is not endless. Cool question to chew on!!!*
- Brainstorm examples of things that are infinite:

Lots of examples – here are some: grains of sand on earth, drops of water in the oceans on earth, number of cells in all the living organisms on earth

- How do we count things that are infinite?

According to the definition of "infinite", it describes things that are too numerous to count!

- What numbers, symbols or words do we use to count things that are very **LARGE**?

We use exponents, the symbol for infinity, light years...

- What numbers, symbols or words do we use to count things that are very small?

We use decimals, fractions, percents, exponents...

S-T-R-E-T-C-H your thinking:

- There is a program in India called "Help a Child" organized by Somaiya Trust whose mission is to help kids like Akash who are struggling to survive in very poor families and desperately want an education. The program finds kids who score high on school tests and offers them scholarships to continue with school. According to their website, they have helped 67 kids from 2002 to 2006 who would have had to leave school to help support their family or get married. In the Author's Note of Saraswati's Way, the author tells us there are somewhere between 100,000 and 500,000 street children just in New Delhi. Sixty-seven kids out of even 100,000 is a very small fraction. There are still so many left who need help! Do you think that the "Help a Child" program is making a difference? Discuss this with your partner/group.

- Check out this really interesting history of fractions, including an important connection to India!

CHALLENGE! (student sheet)

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- What does the word "infinite" mean when we use it in math? (don't know? Look it up!)
- Is the cosmos really endless? Explain
- Brainstorm examples of things that are infinite:

- How do we count things that are infinite?

- What numbers, symbols or words do we use to count things that are very **LARGE**?

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Today, your task in the quarry is to divide the stone block into equal sized chunks. Use your fraction bars as "stones" to answer the questions.

1. Find the bar that represents one whole "stone".
2. Imagine that you have "chiseled" the "stone" in half and find the bars that are the size of half the whole "stone". *How many halves do you need to equal one whole "stone"?* Write your information in the table below. *What fraction is one piece of the original whole bar?* Write your information in the table below.
(NOTE: hang in there with me – I know that you knew those answers, but this is the start of a pattern – keep going!)
3. Divide each bar in half **again**. Find the pieces that show how you've divided and put your new results in the table.
4. Continue to divide each bar in half again until you get to the smallest bar that you can. Each time you divide, record your information in the table.

Number of pieces that equal one whole	Fraction that one piece represents of the whole bar
2	½
4	¼
8	1/8
16	1/16

Now look at your results and talk to your partner/group.

- What patterns do you see? *Tons! Some examples: numbers in the left column are doubling each time; the denominators in the right column are doubling each time*
- What is happening to the number of pieces each time you divide them? *They get bigger (they double in size)*
- What is happening to the denominator of the fraction each time you divide? *They get bigger (double)*
- What is happening to the size (or value) of the fraction each time you divide? *The value of the fractions are decreasing each time I divide; the fractions are getting smaller*

Interesting, isn't it?!

- Now circle a fraction that is smaller (or worth less) than ¼. *Circle ½*
- Draw a box around a fraction this is larger (or worth more) than ¼. *Box 1/8 or 1/16*

Discuss and write: When dividing, how is it helpful to understand fractions?
When dividing, it helps to understand fractions because when you divide, you are cutting a whole into smaller pieces and fractions are pieces of whole things. So understanding fractions helps you name the pieces and do things with them.

S-T-R-E-T-C-H your thinking: What size pieces would you end up with if you divided the smallest bars AGAIN? *Depending on how far you went, 1/16 or 1/32 or 1/64*
How small do you think you could go before you would have to stop dividing? WHY?
There is no one correct answer to this – who has the strongest argument for their opinion?

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CHALLENGE! (student sheet)

Put yourself in Akash's shoes for a moment. You have been given the responsibility of working off your family's debt to keep your house. You want to help your family, but you're angry about being sent away, and the work is tough. You feel grateful to have a friend like Anant to show you the ropes and keep you company, but you soon realize that your hard work will never pay off your family's debt. Think about this: *How would you feel about helping your family while sacrificing your own dreams? How would you feel about discovering that no amount of hard work could pay off your family's debt?* **Share your thoughts with your group – all answers are welcome!**

Today, your task in the quarry is to divide the stone block into equal sized chunks. Use your fraction bars as "stones" to answer the questions.

1. Find the bar that represents one whole "stone".
2. Imagine that you have "chiseled" the "stone" in half and find the bars that are the size of half the whole "stone". *How many halves do you need to equal one whole "stone"?* Write your information in the table below. *What fraction is one piece of the original whole bar?* Write your information in the table below.

(NOTE: hang in there with me – I know that you knew those answers, but this is the start of a pattern – keep going!)

3. Divide each bar in half **again**. Find the pieces that show how you've divided and put your new results in the table.

4. Continue to divide each bar in half again until you get to the smallest bar that you can. Each time you divide, record your information in the table.

Number of pieces that equal one whole	Fraction that one piece represents of the whole bar

Now look at your results and talk to your partner/group.

- What patterns do you see?
- What is happening to the number of pieces each time you divide them?
- What is happening to the denominator of the fraction each time you divide?
- What is happening to the size (or value) of the fraction each time you divide?

Interesting, isn't it?!

- Now circle a fraction that is smaller (or worth less) than ¼.
- Draw a box around a fraction this is larger (or worth more) than ¼.

Discuss and write: When dividing, how is it helpful to understand fractions?

_____

_____

_____

S-T-R-E-T-C-H your thinking: What size pieces would you end up with if you divided the smallest bars AGAIN? _____ How small do you think you could go before you would have to stop dividing? _____ WHY?

ENTRY SLIP – Lesson 1

Name: _____ Date: _____

Write or draw an example of a fraction: _____

Write/draw a fraction that is worth MORE than your fraction: _____

Write/draw a fraction that is worth LESS than your original fraction: _____

When dividing, how is it helpful to understand fractions? _____

_____

_____

ENTRY SLIP – Lesson 1

Name: _____ Date: _____

Write or draw an example of a fraction: _____

Write/draw a fraction that is worth MORE than your fraction: _____

Write/draw a fraction that is worth LESS than your original fraction: _____

When dividing, how is it helpful to understand fractions? _____

_____

_____

ENTRY SLIP – Lesson 1

Name: _____ Date: _____

Write or draw an example of a fraction: _____

Write/draw a fraction that is worth MORE than your fraction: _____

Write/draw a fraction that is worth LESS than your original fraction: _____

When dividing, how is it helpful to understand fractions? _____

_____

_____

ENTRY SLIP – Lesson 1

Name: _____ Date: _____

Write or draw an example of a fraction: _____

Write/draw a fraction that is worth MORE than your fraction: _____

Write/draw a fraction that is worth LESS than your original fraction: _____

When dividing, how is it helpful to understand fractions? _____

_____

_____

LESSON 2 – Vedic Math – trick or truth?

Getting Prepared: Materials & Handouts

- *Verically & Crosswise* handout – paper copies or electronic
- One or more computers

Teacher Resources on Vedic Math:

- http://www.vedicmaths.org/introduction/What%20is%20VM.asp - Vedic Math Academy site with background information, tutorials and resources
- http://www.pawin.org/esl-k-12/jobs-k-12/the-beauty-of-vedic-math.htm - a nice explanation and example of one sutra
- http://www.squidoo.com/Vedic_Math - teacher Rebecca Newburn explains Vedic Math through a few video tutorials

*** Share resources with kids – see *Something to Chew on* at the end of the lesson.**

Guiding Questions:

- How do numbers change when multiplied by other numbers?
- How are subtraction, addition and multiplication related?
- How is mental math useful in your everyday life?

Common Core Standards:

- Grade 5: 5.NBT.5. Fluently multiply multi-digit whole numbers using the standard algorithm.
- Grade 6: 6.NS.3. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.
- Grade 7: 7.NS.2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.

From the Common Core State Standards Initiative at http://www.corestandards.org/the-standards

Introduction:

In Saraswati's Way, Akash joins a group of boys who collect recyclable bottles from trains and trash piles in the Delhi train station to earn money that will help them survive on their own. The leader of the group, Rohit, is interested in Akash's knowledge of math.

> 'You are good with numbers?'
> Akash nodded, waiting for the joke Rabbit-boy would make at his expense. Instead, the boy remained serious.
> 'How good?'
> Akash shrugged. 'I can add, subtract, multiply, and divide quickly.'
> 'In your head?'
> 'Yes.'

Rohit proceeds to quiz Akash and is amazed at the speed of his mental calculations.

> 'How did you learn to do this?'
> 'I went to school in my village and it just comes easily to me.'
> 'It doesn't come easily to *me*. Numbers just skitter away from me like chipmunks,' Rabbit-boy said, his voice lower. 'What a gift you have!' (Schröder 92-93)

KUDo's

- Students will KNOW: product, vertically, crosswise
- Students will UNDERSTAND: multiplication problems with digits under 10 can be solved using the Vedic Math sutra *vertically and crosswise*
- Students will DO:
    - apply the vertically and crosswise sutra to solve multiplication problems with digits under 10
    - analyze the thinking behind the sutra – why does it work?

Preassessment (*Remembering*)

Time: 3-5 minutes

- Ask students to show one way to multiply 7 x 8, using numbers and either words or pictures on their paper/wipe board.

Teaching, Learning & Thinking

- Warm-up (*Understanding)*:

Time: 10 minutes

- Invite students to share their multiplication methods & thinking on the board/overhead/projector. As students share, discuss the following:
    - What similarities do we see between methods?
    - Which ones reveal an understanding of the math behind the final answer? How can you tell?
    - The first guiding question: *How do numbers change when multiplied by other numbers?*
    - The second guiding question: *How are subtraction, addition and multiplication related?*

- Do a quick check-in about the meanings of the essential terms (product, vertically, crosswise) to make sure you're all on the same page.

Time: 1 – 3 minutes

- Whole class (*Understanding):*

Time: 15 minutes

- Read the introduction of this lesson to the class. Then explain that after collecting bottles and having them weighed to determine their worth, Akash realizes how valuable his skills are to survival and offers to teach Rohit a "trick" for mental multiplication. This "trick" is actually a strategy of Vedic Math called *vertically and crosswise.* Read aloud the scene from page 97-99, then use a document projector, a computer projector or a transparency copy of the handout called *Vertically and Crosswise* to show students Akash's "trick".
- Invite students to turn to a neighbor and ask questions about Akash's methods – what do they see and wonder about this problem solving process? After a couple of minutes, pose a few questions of your own:
    - How is Akash using both multiplication, subtraction and addition in his problem solving process?

- Could he subtract diagonally the other way (8-3) instead and still end up with the same product? Will this always happen? Why?
- What IS Vedic Math?

♦ Groups (*Applying & Analyzing)*:

Time: 10 – 15 minutes

- Give each student a copy of the *Vertically & Crosswise* handout or send it to them electronically if using computers and divide students into groups of 3 or 4. These groups should be heterogeneously mixed by ability and learning styles. Have groups follow the instructions on the handout, using Akash's explanation of the sutra as an example to apply the strategy themselves. The handout is designed to allow students to self-differentiate once them understand the sutra.
- Mingle around the room and listen in on students conversation to clarify misunderstandings and answer questions, but encourage students to turn to their group first for clarification and help.

Check in (*Evaluating*)

Time: 5-10 minutes

Give the groups a one minute reminder. Then pull the class back together. They've tested the sutra for themselves and taken some time to think about WHY it works. Ask each group to report out on their thinking about the math behind the "trick" and discuss.

Wondering…next steps (*Evaluating & Creating*) – create relevance for your students

♦ Pose this final guiding question to your students: *How is mental math useful in your everyday life?* And ask them to evaluate the usefulness of this sutra in their own bag of mental math strategies – did they like it? Get them talking about how they could use mental math skills in their own daily tasks and give some examples of your own (at the grocery store when buying multiple cans of beans, cooking at home when doubling a recipe, on a run when calculating your pace…)

Something to chew on:

Read & post this question for the students to mull over:

How could other sutras of Vedic Math strengthen your mental math muscles? Check them out and take a few for a spin! Direct students to these interesting resources:

http://www.vedicmaths.org/introduction/tutorial/tutorial.asp - Vedic Math Academy site from the handout – filled with information on the sutras of Vedic Math
http://www.squidoo.com/Vedic_Math - teacher Rebecca Newburn explains Vedic Math through a few video tutorials

Name: _____ Date: _____

Vertically & Crosswise
A mental math "trick" of Vedic Math

In your group, reread Akash's explanation of how to multiply single digit numbers using the Vedic Math sutra *vertically and crosswise* on pages 97-99. Then, take a look at the Akash's example below.

The problem: 7 x 8 = ?

The solution:
Step 1: Ask yourself how much is missing between each number in the problem and 10.
How much is 10 minus 7? 3
How much is 10 minus 8? 2

Step 2: Set up the problem **vertically** so that the numbers being multiplied are in the left hand column and the difference from each number to 10 is in the right hand column.

7 3
8 2

Step 3: Now subtract **crosswise** (diagonally):
7 – 2 = 5 OR 8 – 3 = 5
So 5 is the first digit (or tens digit) of your product.

Step 4: Now multiply the digits in the right hand column (i.e. the difference from each number in the problem to 10) **vertically**:

3
x 2
6 So 6 is the second digit (or ones digit) of your product.

Therefore, the product of 7x8 is 56!

- Now you try! As a group, pick 2 different single digit numbers and follow the steps above, using the space below. Then check your answers with each other as well as by using another method of multiplication. Did it work?

Your Problem: _____

Step 1: Ask yourself how much is missing between each number in the problem and 10.

Step 2: Set up the problem **vertically** so that the numbers being multiplied are in the left hand column and the difference from each number to 10 is in the right hand column.

Step 3: Now subtract **crosswise** (diagonally):

Step 4: Now multiply the digits in the right hand column (i.e. the difference from each number in the problem to 10) **vertically**:

Your product: _____

- Try again:
  1. If you need more practice, then pick a few more pairs of numbers to try.

OR

  2. If you have the hang of it, then check out more Vedic Math sutras on *this interesting site created by *Vedic Math Academy*. You'll find mini lessons on a few of the sutras that you can try out for yourself! Plus, you can read about all 16 sutras of Vedic Math and their subsutras. Get ready to flex your mental math muscles! [* http://www.vedicmaths.org/introduction/tutorial/tutorial.asp]

- After giving everyone in the group about 5 – 10 minutes to work on either #1 or #2 above, then find a stopping place and discuss the *vertical & crosswise sutra*. Write down your groups' answers to the questions below.

  - WHY does this method work? What is the math behind this "trick"?

_____

_____

_____

_____

_____

_____

NOTE: If your group finishes discussing and recording your thoughts on the questions above and you still have time to work, then EVERYONE should visit the Vedic Math Academy website to try out one or more of the tutorials. http://www.vedicmaths.org/introduction/tutorial/tutorial.asp

LESSON 3 – Triangular Numbers – like counting sheep

Getting Prepared: Materials & Handouts

- *The HUNT for Triangular Numbers* handout
- Variety of materials, images and objects for the third part of the hunt

Guiding Questions:

- What patterns are revealed during a study of triangular numbers?
- Where do triangular numbers appear in nature?

Common Core Standards:

- Grade 5: Observations & Algebraic Thinking 5.OA: *Analyze patterns and relationships.*
- Grade 6: 6.NS.3. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

From the Common Core State Standards Initiative at http://www.corestandards.org/the-standards

Introduction:

In Saraswati's Way, Akash often comforts himself in times of uncertainty with the familiarity of numbers and patterns in the world around him. Sleeping on the concrete roof of a bookstall in the Delhi train station felt a long way from home to Akash. One morning, Akash woke very early and could not fall back to sleep. His friend, Rohit, asked him why he was awake and Akash replied that he was thinking about triangular numbers because they helped him fall asleep. As always, Akash's passion for numbers urges him to share it with others, so he explains this special number sequence to Rohit.

> 'You get them when you add the previous number to the next. Like 1+2=3, 1+2+3=6, 1+2+3+4=10, and so on,' Akash explained. "They are a very interesting sequence.'
> 'Stop thinking, start sleeping,' Rohit said.
> 'Do you know why they're called triangular numbers?'
> 'You can arrange them as a triangle. I can draw it for you,' Akash said.
> 'No, please don't. I'm sleeping.'
> 'Birds often fly in the formation of triangular numbers,' Akash said.
> (Schröder 154-155)

KUDo's

- Students will KNOW: triangular numbers, number sequence
- Students will UNDERSTAND: triangular numbers reveal a variety of patterns both interesting and useful in the study of math and nature
- Students will DO:
  - discover patterns in triangular numbers
  - calculate triangular numbers

Pre-assessment (*Remembering*)

Time: 2-3 minutes

Write this number sequence on the board and give students a few minutes to determine the pattern that will reveal the next number:

1, 3, 6, 10, 15, 21, 28, ____

Teaching, Learning & Thinking

- Warm-up (*Understanding)*:

Time: 5-10 minutes

- Invite students to share their thinking around the patterns they see in the number sequence above. They will most likely mention that the amount added to the previous number to get the next number in the sequence increases by one each time, but encourage them to make observations about the numbers in the sequence – evens or odds? Prime or composite? Square numbers? What do they see?

- Whole class (*Understanding & Applying):*

Time: 15 - 20 minutes

- To help students discover the beauty behind triangular numbers, facilitate discussions around these two elements:
  1. To reveal the equations that result in triangular numbers that Akash explains in the book, write 1+2=3 on the board, so students can look at the equation that gives us the first number in the sequence. Then, ask students:
     - *What do we need to add to this equation to get the next number in the sequence?* 3, so 1+2+3=6
     - *What do we need to add to this equation to get the next number in the sequence?* 4, so 1+2+3+4=10
     - *What do we need to add to this equation to get the next number in the sequence?* 5, so 1+2+3+4+5=15
     - *Who sees something interesting emerging here? Describe it!*

  2. To reveal the visual element of triangular numbers (and, hence, the origin of their name, which is still a secret to your students), draw a triangle for the first three numbers in the sequence that is made of dots. Then, ask students what they notice about the images (i.e. they're triangles!). Ask students if they think one could draw a triangle of dots for the other numbers in the sequence. Invite some kids up to try. They should look like this:

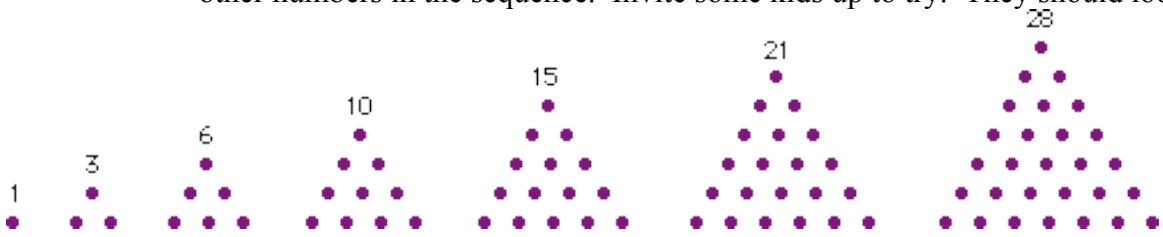

Image from The Math Forum at http://mathforum.org/workshops/usi/pascal/pascal_triangular.html

Most importantly, ask the students WHY each number in this sequence can be drawn as a triangle. Notice that if you add another row to the bottom of the previous triangle with one additional dot, you get the triangle for the next number in the series, which is exactly what we did in numbers with our equations in #1 above.

- Read the introduction of this lesson to the class.

♦ Pairs (*Applying, Analyzing & Evaluating)*:
Time: *25 - 50 minutes

Divide students into pairs and give each pair a copy of *The HUNT for Triangular Numbers* handout. You may want to allow students to pick their own partner, reserving the right to reassign pairs who do not stick to task in the first portion of the hunt. The hunt begins in the classroom to allow you the opportunity to clarify and redirect students who need support. Then the hunt moves outside to allow for connections to nature and finally to other disciplines and events in our world. *Structure the hunt in a way that fits your time parameters, your environment and your students. You may choose to spread this lesson out over two class periods in order to provide ample time for the hunt, especially the third portion. For the hunt outside, you may choose to select a specific location outside the school or you may lead a walking tour around the school. Another option is to assign the third portion for homework and complete this lesson the next day in class.

Check in (*Evaluating & Creating*) - create relevance for your students
Time: 10–15 minutes

- Give the groups a one minute reminder. Then give them a minute to star their three favorite examples on their sheet. Select a way to record student examples for the class to see – on a large piece of chart paper, on the board, on a computer hooked up to a projector…Leave each example open for discussion – is each one clearly an example of a triangular number or are some open to interpretation?

- Then discuss the last two questions on the handout: *What do these examples tell you about triangular numbers? Are they truly woven into our world?*

Wondering…next steps (*Creating*) – create further interest
Time: 3-5 minutes

♦ Tie up the lesson with a question shower – what questions come to students' minds as they see their peer's examples. Are they curious about the presence of triangular numbers in other disciplines, events in history, forms of expression…?

Something to chew on:
Read & post this question for the students to mull over: How do triangular numbers connect to other number sequences like square numbers or perfect numbers?

Name: _____ Date: _____

The HUNT for Triangular Numbers

Where can you find Triangular numbers in the world around you? Let's find out! It sounds like it's time for a scavenger hunt!

First, hunt around the room and write down examples of triangular numbers (like packages of 10 pens or dice with 6 sides):

_____

_____

_____

_____

Next, hunt around outside and write down examples of triangular numbers in nature (like Akash's example of the V formation of birds in flight):

_____

_____

_____

_____

Finally, hunt around in books (all sorts - fiction, nonfiction, poetry…), artwork, music, sports, science and history to find examples of triangular numbers (like 10 pins used in bowling, 6 strings on a guitar or the 3 branches of government):

_____

_____

_____

_____

Now review your examples, mark your top three favorites with a star and share them with the class.

EVALUATE: What do these examples tell you about triangular numbers? Are they truly woven into our world?

Designed by Molly O. Smith - September 2011

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LESSON 4 – Akash's world: *Questioning to Understand*

Getting Prepared: Materials & Handouts

- *Questions* handout for each pair

Guiding Questions:

- How does Akash question his world and circumstances in order to understand them?
- How can you use different types of questions to learn more about Akash's world?

Common Core Standards – Reading Standards for Literature:

- Grade 5: Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- Grade 6: Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- Grade 7: Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

From the Common Core State Standards Initiative at http://www.corestandards.org/the-standards

Introduction:

In Saraswati's Way, Akash questions his situation in life in order to understand how he got there and figure out what to do next. After learning more about Rohit's goal to earn money to bring back home to help his sick mother, Akash realizes that he can never go back home. He wonders how his choices have affected his family: "With a pang Akash remembered Anu. By now Kumar-ji would have told the family that Akash had run away. What had Anu thought when she heard what Akash had done? Would she understand?" (Schröder 115).

KUDo's

- Students will KNOW: open questions, closed questions
- Students will UNDERSTAND:
  - The act of questioning helps you learn about your world and your role in it
  - Both open and closed questions provide useful information to help you navigate your world
- Students will DO:
  - Identify passages in the book where Akash uses questions to gain understanding about his situation
  - Develop both open and closed questions to use in a discussion focused on gaining understanding about Akash's world, his situation and his future

Preassessment (*Remembering & Understanding*)

Time: 2-3 minutes

- Write these questions from Saraswati's Way on the board and ask students to put them into two groups in any way that makes sense to them.
  - *What is a scholarship?*
  - *How many students take the exam in the state?*
  - *Why had Yama, the god of death, not taken Uncle Jagdish instead of Bapu?*

- *But how could he pay for a private school?*
- *What's in the bag?*
- *How did Saraswati decide when to help?*

- Walk around to see how students are categorizing the questions and notice which kids group by concrete characteristics (like short questions and long questions) and which kids group by more abstract characteristics (like the type or purpose of the question). This information can help you as you support their work in pairs during this lesson. Students who look at questions more concretely may need more examples and explanation to understand the difference between open and closed questions.

Teaching, Learning & Thinking

♦ Warm-up (*Understanding & Applying)*:

Time: 5-10 minutes

- Discuss their groupings: *how did you decide to categorize the questions*? All ideas are welcome, but after a few minutes, explain that one way to group the questions is by type. Some of the questions only have one answer and can be called "closed questions" because they do not open the door for discussion. Some of the questions have several possible answers and can be called "open questions" because they open up the conversation to make room for interesting thoughts and ideas.
- Have students turn and talk for a few minutes to a neighbor to determine which questions from the list are closed and which are open. Discuss as a class. Then talk about the circumstances for asking each type of question. *When is it useful to ask a closed question? An open question?*

♦ Pairs (*Applying, Analyzing, Evaluating & Creating)*:

Time: 30 minutes

- Have students *pair up with someone different. Give them the questions handout to work on together and instruct them to complete the notes and Part 1. Then, as a whole group, discuss their questions and what type they are. Record both types of questions in a "T" chart on the board or projector for the class to see. Discuss their thinking around the questions on the handout about both the author's purpose and Akash's purpose for using questions in the book. Once students share their own thoughts, read them the introduction of this lesson and ask for their response.
- Explain to students that they will now have the chance to record their own questions about Saraswati's Way to use in a discussion with a small group about the book. Instruct them to complete Part 2 either with their partner or alone. Instruct students to self-differentiate by working alone if they feel comfortable with the two types of questions and their purposes or with their partner if they're not quite sure.
- Connect each pair with a second pair to create groups of four (or three) to conduct discussions in Part 3 of the handout.
  - NOTE: Student directed book discussions require practice with communication skills and an open environment that encourages varied opinions, so you may need to do some modeling and practice with students before having them do Part 3 if it is early in the year.

- You can walk around the room, listening to conversations, jumping into facilitate if a group gets stuck or to provide more coaching about the two types of questions and their purposes.

*Some pairing ideas: Instruct students to pair up with a person they have not worked with yet today; have students line up by height and then fold the line in half so each person is facing another person in the other half of the line – that is their partner; have students pair up by choice, then instruct them to find another pair to swap partners – now that is the partner you'll be working with today.

Check in (*Evaluating*)
Give the groups a one-minute warning. Then have each student complete the exit slip in part 4 independently. This will give you a sense of who learned something new from the discussion as a result of the students' questions.

Wondering…next steps (*Creating*) – create relevance for your students
Leave your class with this question to mull over between now the final lesson: *How are you and Akash alike?*

LESSON 5 – Social Studies – Literature as a Link

Getting Prepared: Materials & Handouts

- Cumulative project rubric guides
- Resources sheet – a small sampling of social organizations are provided, but you should pull together those that fit your students' interests, needs and contexts (NOTE: *this works best in electronic form as each organization is linked to it's website*)

Guiding Questions:

- How are Akash and I connected?
- How is Akash's story connected to other stories, poems, articles or essays I have read?
- How is Akash's story connected to events, people, places or situations in the real world?

National Curriculum Standards for Social Studies:

This lesson focuses on the following NCSS themes:

- Culture
- People, Places and Environments
- Individuals, Groups and Institutions
- Global Connections
- Civic Ideals and Practices

From http://www.socialstudies.org/standards

National Geography Standards:

- The Characteristics, Distribution, and Complexity of Earth's Cultural Mosaics

From http://www.nationalgeographic.com/xpeditions/standards/

Common Core Standards – Reading Standards for Literature:

- Grade 5: Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.
- Grade 6: Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.
- Grade 7: Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.

From the Common Core State Standards Initiative at http://www.corestandards.org/the-standards

Introduction:

In Saraswati's Way, Akash is thrust into the life of a street kid when he jumps the train to Delhi to escape the quarry. When he arrives in the Delhi train station he is faced with the harsh reality of life on his own. Even though he is homeless and misses his father, he is determined to find a way to get the money he needs to continue his education. This will be his ticket out of life on the street. "His new friends were thieves. They were inhaling chemicals and he would have to wade through garbage to find food and earn money. Akash could only stay in their company for a short time." (Schröder 110).

KUDo's

- Students will KNOW: text to self connections, text to text connections, text to world connections
- Students will UNDERSTAND:
  - the act of making text to self connections helps the reader become more immersed and invested in the characters and their story
  - the act of making text to text connections helps the reader analyze literature on a higher level
  - the act of making text to world connections validates the context of the book and offers the reader opportunities to interact with the text in a deep, authentic manner
- Students will DO:
  - make connections to the text with supporting explanations
  - create a final product for an authentic audience to demonstrate their knowledge of the book and its efforts to raise awareness about the difficult life of Indian street children.

Preassessment (*Remembering*)

Time: 3 – 5 minutes

Write this question on the board and ask students to respond independently in writing: *How are you and Akash alike?*

Stroll around the room and notice which students make concrete connections and which ones make more abstract, complex connections. This information will help you guide students later on in the lesson.

Teaching, Learning & Thinking

- Warm-up (*Understanding)*:
  Time: 10 minutes

Text to self connections: A connection the reader makes between himself and some component of the text (the setting, characters, plot, themes…). Model how to share a *text to self* connection by describing a way in which you and Akash are like. Use this type of language to get your kids thinking in terms of connections: *I am like Akash because he lost his parents and I have lost my aunt, whom I loved very much. So I understand why Akash feels sad when his father dies. I have just made a special type of connection to the book called a* **text to self** *connection because I am connecting myself to the book.*

Then ask for volunteers to share their connections to Akash and ask them to explain both parts of their connection: the piece about themselves as well as what it is in Akash's personality or experience that they're making a connection to.

Once a few of the students have shared, ask students: *As a reader, what is the value of making* **text to self** *connections?* Have the kids turn and talk to discuss this question while you walk around to listen in. Ask students to report out their idea or their neighbor's to the whole group.

If the kids don't point it out, then you can add that the value of making these connections is to: become a more active reader who is more invested in the story, to put yourself in the characters' shoes to gain more

understanding about their situations and choices, to see the characters as real people, to make the story come alive, to help create real images in your mind about the characters and events in the story….

Do a quick check in to see if anyone has questions about how to make *text to self* connections.

- Whole Group & Pairs (*Applying, Analyzing & Creating)*:
  Time: 2 class blocks of 30-45 minutes each

Introduce students to the two other types of connections: *text to text* connections and *text to world* connections by writing them on the board one at a time and asking students to guess at what each one means. Discuss some of their educated guesses and ask kids to explain their thinking. Then share theses definitions:

- *Text to text connection*: A connection the reader makes between two or more texts based on characters, plot, setting, themes…. Text includes fiction and non-fiction, poetry and prose, magazine articles, newspaper articles, song lyrics, plays, blog posts, speeches, etc…
- *Text to world connection*: A connection the reader makes between the book and something in the real world, past, present or future based on characters, plot, setting, themes… This type of connection focuses on historical events and figures, political events, current events, cultures, economics, technology, etc…

Give the class an example of a *text to text* connection and then ask students for further examples.

(ex. Akash in Saraswati's Way reminds me of Sticky Washington in The Mysterious Benedict Society because they are both hungry for knowledge and love to learn; The book Saraswati's Way reminds me of Bud Not Buddy because both Akash and Bud loose their parents and must learn to find their way in the world on their own; Ramesh in Saraswati's Way reminds me of Marilla and Matthew Cuthbert in Anne of Green Gables because Ramesh is a kind adult who takes in Akash when he doesn't have a home and Marilla & Matthew are kind folks who give Anne a home when she needs one.)

Ask students: *As a reader, what is the value of making* **text to text** *connections?* Discuss. If the kids don't point it out, then you can add that the value of making these connections is to: get us thinking more about the big ideas in books, like themes and messages from the author, that make us more critical readers; take a closer look at the craft of writing in books to improve our own writing; open the door to questions for the author about their choices for their book; give us practice with the skill of making thoughtful, supported connections that provide new ways of looking at things.

Ask students to discuss what a *text to world* connection might be, give an example and then ask for more from the class.

(Ex. In Saraswati's Way it is common for families like Akash's to "rent" land from a landowner and be required to work in return for any money owed on that rent, which reminds me of Englishmen in the 1600's who were forced to work on English ships if they couldn't pay their taxes to the king. The number of kids who live on the streets, in train stations and slums in India today connects to Akash's experience in Saraswati's Way because the reader gets a glimpse of what life is like right now for homeless children in India.)

Ask students: *As a reader, what is the value of making* **text to world** *connections?* Discuss. If the kids don't point it out, then you can add that the value of making these connections is to: gain understanding about what's happening in the world around us by looking through the lens of literature; use books as the beginning of a conversation about our world; ask questions about the author's intention – is it to make a statement or share a lesson about our world?

Provide students with two formats in which to demonstrate their cumulative understanding and learning in the novel Saraswati's Way. Once they have chosen, they may *either work alone or pair up with another person who has selected the same option.

1. One option is to create **text to text** connections between Saraswati's Way and other texts of any kind that also raise awareness about a social cause, situation or event. Students must clearly describe their connection as well as the social topics featured in each text in a visual format to share with an authentic audience.

NOTE: *You may want to introduce students to these books that deal with similar issues to Saraswati's Way*: Boys Without Names by Kashmira Sheth (Balzer + Bray, 2010); No Ordinary Day by Deborah Ellis (Groundwood Books, 2011).

2. The other option is to make **text to world** connections between Saraswati's Way and an organization that aims to raise awareness about a current social cause, situation or event that is important to the student(s). Students who choose this option must find a real person or organization to write to, describing what they've learned about this social issue, why it is relevant to kids today, and what they think should be done about it.

Once students have selected their project, give them the guide that matches their choice. You'll notice a few things on the guides:

- They're organized within the structure of Bloom's Taxonomy, so this is a nice opportunity to reinforce that language with your students.
- They're interactive, so they serve as planning and reflection sheets for your students.
- They have limited room for recording thoughts, so additional paper may need to be attached.

*Providing the option to work alone or in pairs is just another way to differentiate for kids' preferred modes of work environment and expression.

Check in (*Evaluating*)

- As students work, navigate around the room to check in with them so you can discuss the resources they're exploring, ask questions to get them thinking about different perspectives of their chosen issue, listen to their ideas for their final product, and guide them to find an authentic audience. As you do this, you'll be able to evaluate how much time your students need, whether you would like them to complete portions for homework and how well they're understanding the assignment.
- As students complete their final products, ask them to do a self assessment by completing the first few questions of the "Evaluating" portion of their handout. Then have students present their work to one or two peers and ask for specific feedback. Ask the students to give at least one piece of warm feedback (positive) and one piece of cool feedback (constructive; a suggestion to guide improvement). Students can make adjustments based on the feedback before sharing their product with their final audience.

Wondering…next steps (*Evaluating & Creating*) – create additional meaning

- Sharing and reflecting: Each student will share their product with their chosen audience. At the end, he/she will ask for both warm and cool feedback from the audience and then write down this feedback on their handout with some final thoughts.
- Wrap up sharing with a turn and talk: What do you still wonder about? (in relation to the novel, the characters, the setting, the very real struggle of street children in India or around the world, the topics explored by them or their peers…)

Something to chew on as a group:

Time: 5-10 minutes

Post this question: *How does literature raise awareness and provoke action?* Do a THINK, PAIR, SHARE: give students a minute or two to reflect quietly, then have them to turn to a neighbor to discuss their thoughts for a few minutes. Finally, invite kids to share their own thoughts or some they heard in discussion.

Text-to- World Connection

In order to demonstrate your learning from reading and exploring the novel, Saraswati's Way, you have chosen to create **text to world** connections between that book and an organization that aims to raise awareness about a current social cause, situation or event that is important to you. You must create an original product that describes what you've learned about this social issue, why it is important for people to be aware of, and what you think should be done about it. You will share this product with someone in your organization as well as someone who is unaware of the issue you're studying. The contact in the organization you've chosen can provide you with valuable feedback and the person who is unfamiliar with your issue has their awareness raised by your presentation. Use this planning sheet to guide your work. Answer all questions and follow the steps in each level of Bloom's Taxonomy.

Knowing:

- Describe the life of a street child in the Delhi train station.

- What do you know about street children in India that you did not know before you read the book Saraswati's Way?

UNDERSTANDING:

- Why do you think the author thrust the main character into the world of street children?

APPLYING:

- Explore a variety of ***reliable** resources that aim to raise awareness about a social cause, situation or event such as magazine articles, newspaper articles, speeches, interviews, editorials, persuasive essays, etc…

- Select an organization whose social cause is important to you and read at least TWO sources of information about them. Record the bibliographical information for sources you'd like to use to make or explain your connection:

- Describe the real world organization and their social cause that you will connect to Saraswati's Way.

** a reliable source is one you recognize as honest, knowledgeable and consistent. If you're not sure, ask!*

Analyzing:

- Compare the way Saraswati's Way turns the spotlight on the issue of street kids in India to the way your chosen organization focuses on their social issue and describe what they have in common:

- Contrast the novel with your organization and describe how they are different:

- Explain why you think the social issue you've chosen to focus on is important for people to become more aware of:

CREATING:

- Select a format for your final product (some examples: letter, website, personal reflection, editorial, poem, song, wiki, iMovie, presentation, etc…)
- Identify two audiences for your product (who can you contact with in the organization you're studying to share your product with? Who is unaware of your focus issue who could benefit from learning about it through your product?): _____
- Review and discuss the criteria for your product:
  - Explains/illustrates the connection between Saraswati's Way and a social organization.
  - Explains/illustrates the realities of life for street children in the Delhi train station.
  - Explains/illustrates the social issue represented by the organization you chose.
  - Explains/illustrates the reasons why it is so important to raise awareness about each social issue.
  - Explains/illustrates what you think can be done to affect change for each social issue.
  - Neat, visually appealing, edited
- Create your product!
- Share your product with your chosen audience. At the end, ask for their feedback on your work.

Evaluating:

- Compare your final product to the criteria. How well do you meet all of the criteria?

- Do you feel that you put quality time into this project? Explain

- Given the chance to do this again, what would you have done differently, if anything and why?

- Record the warm and cool feedback you received from your peer(s) and make changes to your work as needed:

- Describe the sharing sessions with your audience. Did it feel successful? Explain

- Record the warm and cool feedback you received from your audience and then write a thought or two about what you think about this feedback: