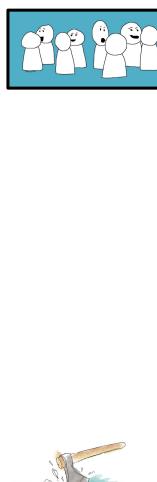


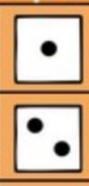


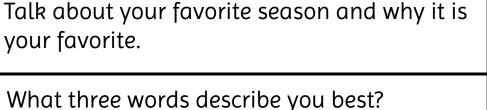
Learning Agreements (Workshop Norms)

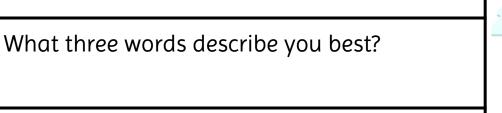
- 1. Be honest about your current reality.
- 2. Actively listen and participate.
- Voice and respond to concerns positively and non-judgmentally.
- 4. Love the idea first to embrace its possibilities.
- 5. Slow down to think, reflect, and puzzle about things.
- 6. Hold each other accountable for agreed upon norms.

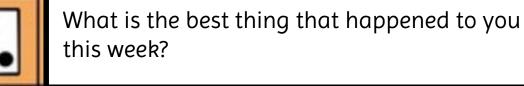


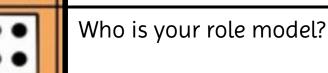


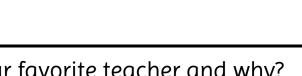




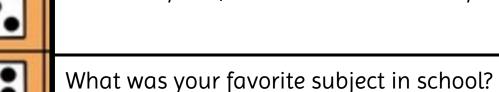












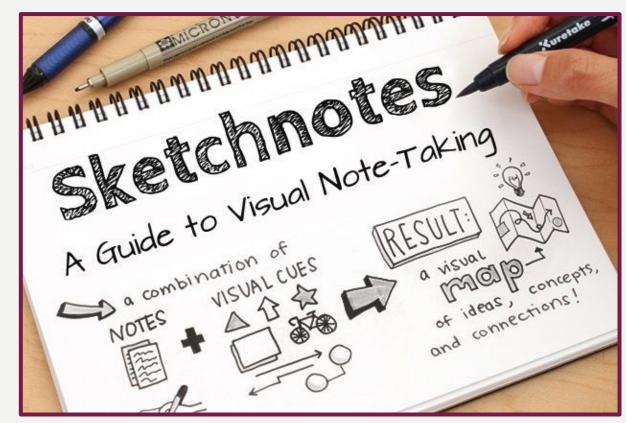






Who was your favorite teacher and why?

SKETCH NOTING

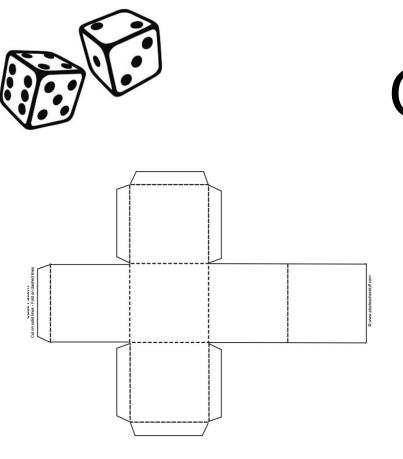


(3:02)

https://www.youtube.com/watch?v=qY9KdRfNN9w

As we go through today, you can create a Sketchnote for all of the concepts/strategies about which we talk.





Or, take notes on the blank die template.





- Curriculum
- Equity
- Protocols
- Academic Conversations
- Takeaways
- Ideas

What is curriculum?

HEALTH

LITERATURE

ANATOMY
PHYSICS
Jord History

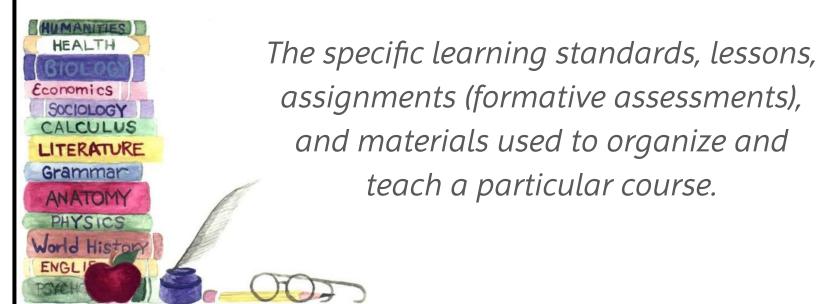
SOCIOLOGY CALCULUS



- 2. Share your definitions at your table.
- Synthesize all ideas to create one definition for your table.
- 4. Choose someone to share the definition.

What is curriculum?

Our definition for today:

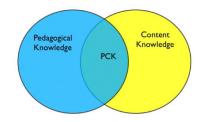


What is curriculum? Environment HUMANITIES HEALTH Student Curriculum Teacher Economics SOCIOLOGY CALCULUS LITERATURE Grammar ANATOMY Content PHYSICS World History ENGLI

Curriculum according to Joseph Schwab



Content & Pedagogy



Students



Teacher



Context / Environment



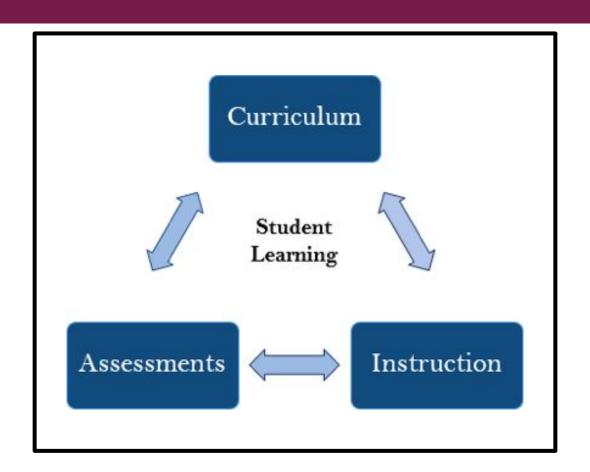
EQUITY

- What does it mean to have equitable opportunities within a guaranteed and viable curriculum?
- How might more equitable opportunities advance student learning and educator practice?

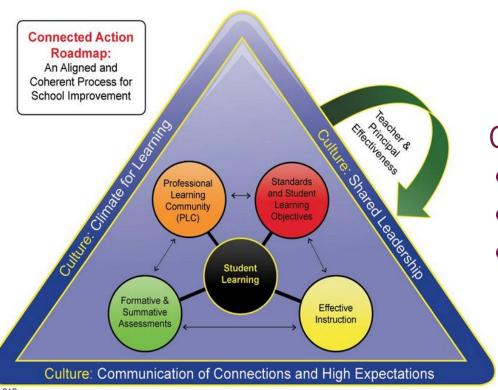
What are some tools and resources to help us advance equity and excellence in teaching and learning?



Tool # 1: Connected Action Roadmap



Tool # 1: Standards-based Instruction Through the CAR Model Process



CAR: a systemic approach to

- teaching
- learning
- leading

Let's Talk: Excellence and Equity for All Learners

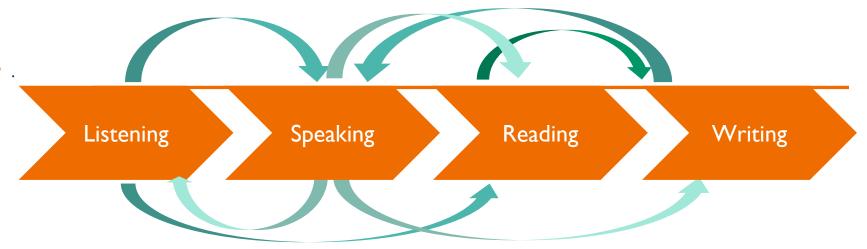


Today's Agenda

- Academic Conversations:
 - Building The Foundation
- Excellence and Equity in Mathematics Instruction
 - Math Workshop: How do we address the needs of all learners?
 - O How is academic conversation involved?
- Mathematical Discourse
 - Planning for Productive Math Discussions
 - Conferring in Math

Academic Conversations: Building the Foundation for Equity and Excellence

Reasons to Converse in School



According to Jeff Zwiers:

- Conversation supports development of the academic language, vocabulary, literacy skills and helps students develop communication skills.
- Conversation builds critical thinking skills and content understanding.
- Conversation helps with cultivating connections and relationships.
- Conversation can help support and push thinking.

Conversations in your Classroom



Guiding Questions

- When do you typically use conversations or turn and talks in your classroom?
- Why do you use conversations or turn and talks in your classroom?
- What do you typically observe during conversations or turn and talks?
- What are some of the challenges that your students experience when having conversations?

7th Grade Math - Think Write Pair Share

- As I reflect upon my use of turn and talks I think about.....
- What are your thoughts about turns and talks?

- What you shared was interesting because
- For me turn and talks are ___
- Can you tell me more about how you ..?





Introduction

Academic Conversations

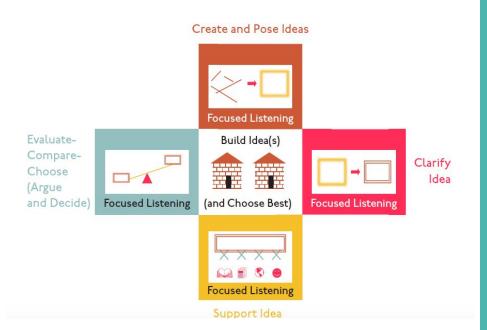


Image from K-3 Guide to Academic Conversations: Practices, Scaffolds and Activities by Jeff Zwiers and Sara Hamerla Sustained and purposeful conversations about school topics

Back-and-forth dialogue in which students focus on a topic and explore it by creating and posing ideas, clarifying ideas, supporting ideas, or evaluating ideas.

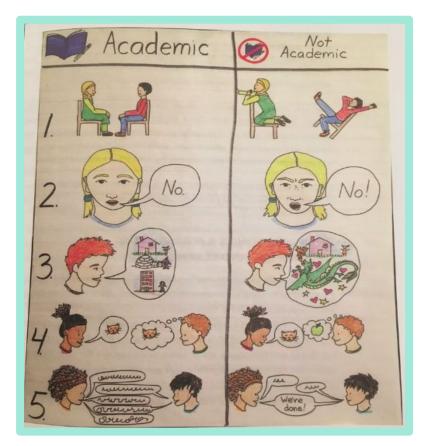
Step 1: Building a Conversation Culture

Establishing & Practicing Conversational Norms

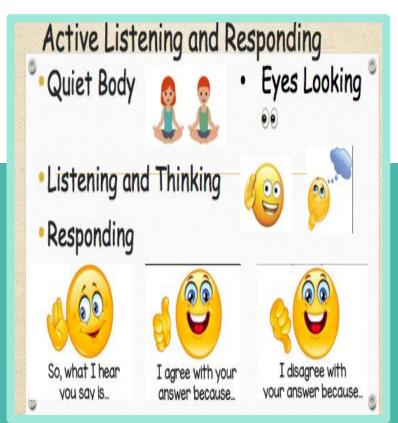
Some ELLs might shy away from conversations because they might not be familiar with effective conversational behaviors/norms or cultural differences may create a challenge.

Examples of Conversation Norms

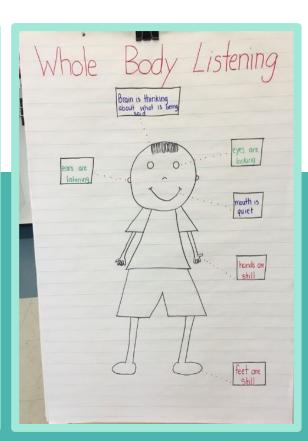
- We take turns when we talk and share air time
- We listen to each other
- We share our own ideas and explain them
- We maintain eye contact with each other during a conversation
- We respect one another's ideas even if they are different
- We respectfully disagree and try to see the other view
- We let others finish explaining their ideas without interrupting
- We maintain attentive posture and use appropriate gesturing
- · We nod our head to show understanding



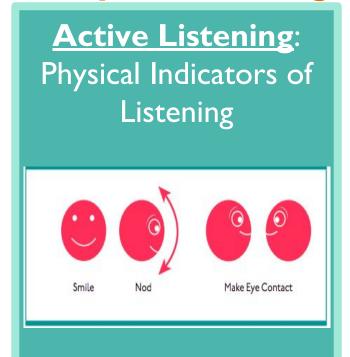
Tools to Help Introduce & Practice Norms in K-2

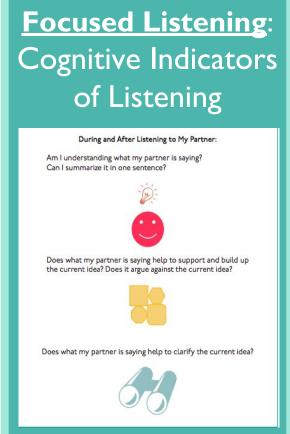






Step 2: Listening Skills Unpacked







WHY Unpack Listening Skills

Active Listening- Physical Indicators of Listening Why?

- I. Create positive feelings and contribute to feelings of safety and trust
- 2. Lets the speaker know you are listening

Focused Listening- Cognitive Indicators of Listening Why?

I. Guides students through the steps of how to understand in order to respond.

Listening Talk Moves – Listening Lingo

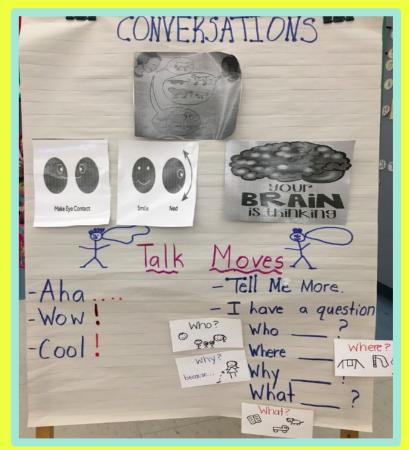
"Oh really. " Wow!" " Interesting! ", "Uh huh", "Hmm.."

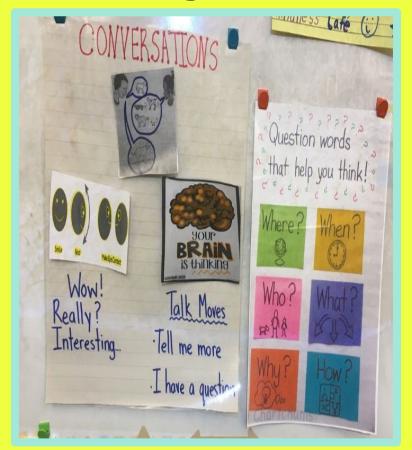
Tell me more about

I never thought or/ heard of this before

I have a question about

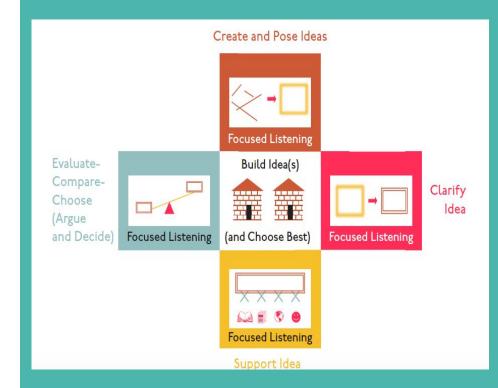
Classroom Application: Listening Skills Tools





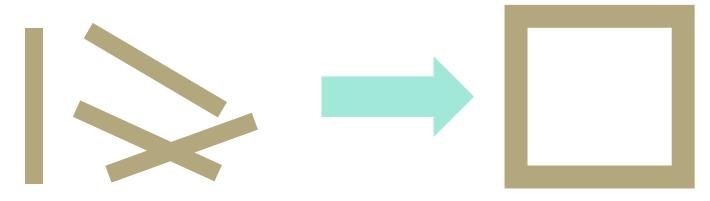
Step 3:

Introduce and Practice Conversation Skills



Images from K-3 Guide to Academic Conversations: Practices, Scaffolds and Activities by Jeff Zwiers and Sara Hamerla

Skill 1: Create and Pose Ideas



State an idea that solves a problem, finds a pattern, or gives an opinion.

Question

Responses

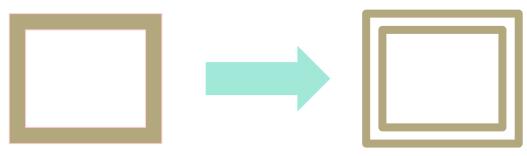
What is your idea?

One idea is...

What does it remind you of?

That reminds me of...

Skill 2: Clarify Ideas



Make sure you both have the same understanding of the idea (be on the "same page"). You and your partner have a clear idea to build up.

Question

Can you elaborate on...?

What do you mean by....?

What's your definition of...?

Responses

In other words, you are saying that...

What I mean by...is...

Skill 3: Support Ideas with Examples, Evidence, and Reasons



Support your idea with examples from the text, from other texts, from the world and from your life.

Question

Can you give an example from the book?

- ...from your life?
- ...from other books we have read?
- ...from the world?

How does that example support the idea?

Responses

In the book it says...

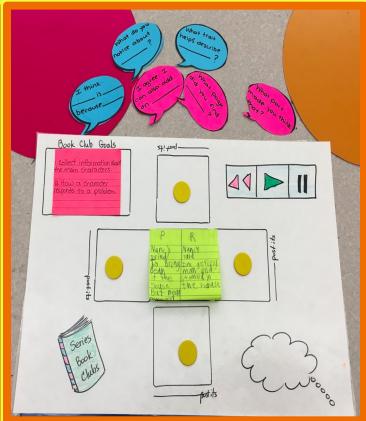
I also learned...

This is important because...

Conversation Skills Tools:







Partnerships

Different variations:



- Reading and writing partnerships
- Math groups partnerships
- Personality and proficiency match partnerships
- Peanut Butter and Jelly Partners
- Cookies and Milk Partners
- Triads Can be a very supportive configuration for lower levels ELLs
- Book Clubs
- Second Set Partners

Partnership Examples

From Mrs. Saracino's Class





Prompts

Start with relatable, fun, engaging and authentic prompts

- Easiest way to practice conversation norms, active listening and new conversation skills
- Provide students a relatable venue and a feel for sustained and focused conversations
 - Most first and second graders were able to accomplish this in one to two lessons
- Make sure to consider different ideas and skills that YOUR students can share with one another
- Make sure your prompts are clear, focused and students have enough supports

Transition to prompts that connect to the curriculum

- After students had the opportunity to practice beginner behaviors, active listening skills and back and forth conversations about every day topics.
- Provide opportunities and supports for using new language, content and thinking



Starter Prompts

Every day relatable topics

Family

- Tell about the people in your family.
 - **Supports:** Picture of the family
- What do you together as a family?
 Supports: Pictures of the activities
- What is your favorite thing to do as a family or with anyone in your family?
- Tell about your favorite game, activity or toy?

Supports: Pictures, realia

Birthdays

- What birthday do you remember the most?
 Supports: Pictures, realia
- What was your favorite birthday dessert?
 Supports: Pictures, realia
- What kind of birthday do you wish to have?
 Supports: Pictures, realia

Starter Prompts

Everyday relatable topics

School

- What was your favorite school activity last year?
- What school activity should we do this year?
- What is your favorite thing to do in our class?
- What is your favorite 100th day activity?
- What 100th day activity would like to do?

Seasonal

Fall - Halloween

- What costumes have you worn in the past?
- What costume was your favorite?
- What is your favorite Halloween activity in school or at home?
- What is your favorite Halloween candy?
- Do you like Halloween?

Winter - Winter Break

Spring - Spring Break

Summer - Summer Break

Examples of Academic Prompts

LESS EFFECTIVE:	MORE EFFECTIVE:
Discuss how you solved this math problem.	Work with your partner to come up with two ways to solve this problem. Ask each other "why" questions as you talk to explain why you are choosing to do certain things. For example
Describe the polar bear to each other.	How do adaptations help the polar bear survive in its habitat? You can use sentences like "If a polar bear didn't it probably wouldn't survive because"
In your conversation talk about your books	What interesting parts or words do you want to share with your partner. You can use sentences like "I want to share What do you notice on this page?"

Mrs. Saracino's Class





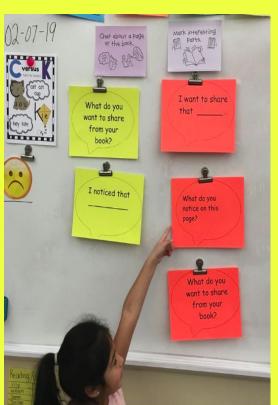




Kindness Cafe in Prep for Book Clubs

Kindness Cafe - Prep for the Opinion Writing

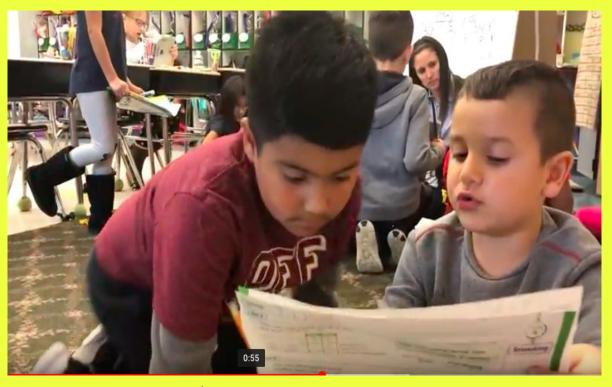
Ms. D'Onofrio's Class





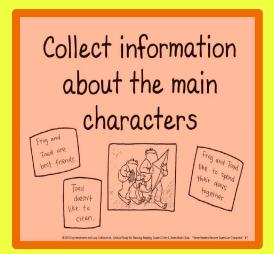
First Grade – Readers Workshop – Marking and sharing interesting parts

Mrs. Lustik's Class



AC – 2nd grade Independent Practice in Math

Mrs. Saracino's Class





Let's Practice!

Round I Prompt:

What are the benefits of incorporating conversations into your lessons?

Both partners think about the benefits as well as their experiences with this practice and jot the ideas for the conversation.

What are the benefits of incorporating conversation into your lessons?

Partner A: Answer the question in the prompt and say as much or as little as you feel comfortable.

- I think incorporating conversations into the school day is important because...
- For example in my classroom I saw that...
- I also think...
- Many people might think that...
- Another reason...
- What are your thoughts about this topic?

Partner B: Practice Physical and Cognitive Indicators of listening while your partner is sharing. Response options either during or after Partner A shares:

- "Oh really. " Wow!" " Interesting! ", "Uh huh", "Hmm.."
- Am I right in hearing your say that....?
- Can you please tell me more about...?
- I have a question about...Can you give an example from your
 - classroom?
- I had a similar experience when...I had a different experience when...

Now, let's add another layer...

Round 2:

Read: "The Benefits of Conversing in School" and denote ideas or concepts (+) you want to discuss in response to the question:

Prompt: What do you think about the idea of incorporating more opportunities for academic conversations into the school day?

What do you think about the idea of incorporating more academic conversation into the school day?

Partner B: Starts the conversation by answering the prompt. Below are some possible ways:

- Students should have more academic conversation opportunities during the day because...
- In the article the author discusses......
- Another reason...
- In my classroom I noticed...
- After this reading this article I think...
- What are your thoughts on this topic?

Partner A: Practice active and focused listening. Use the following response options:

- "Oh really..." Wow!" "Interesting!""Uh huh..." "Hmm..."
- I would love to hear more about...?
- So are you saying that....?
- I want to expand on your point about...

Excellence and **Equity in Mathematics** Instruction

Math Workshop

- Format for teaching math class practiced and widely supported within our district.
- Involves personalized, differentiated learning so that all students are able to learn, practice and find success within their level
- Supported by research, success in action

How does this promote equity & excellence?

What does it look like?

Elements:

- -Number Sense Warm-up
- -Minilesson
- -Rotations: Practice, fluency, problem solving, number sense
- -Teacher Station (or teacher conferring)
- -Closing

Options:

- -Rotations
- -Self-Guided
- -Differentiation

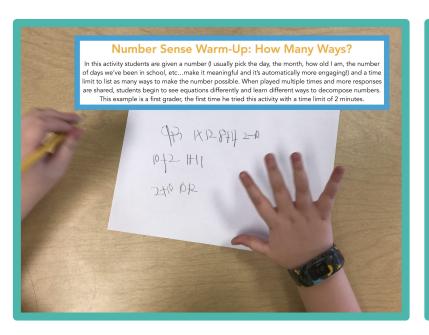
Number Sense Warm Up

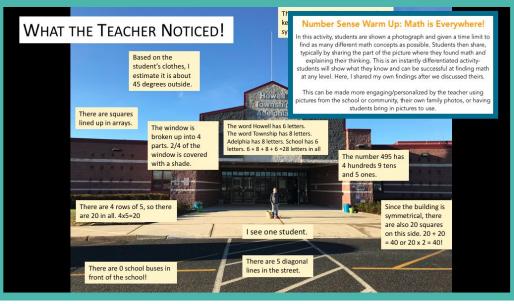
Students are exposed to all levels of mathematical ability in a short, actively engaging warm up.

This is another type of "low floor/high ceiling" activity. It is quick and fun, but provides plenty of opportunity for mathematical discourse.

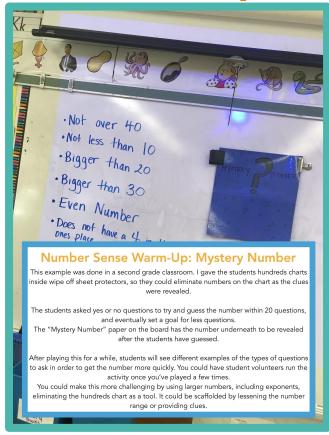
Number of the
Day
Mystery Number
How Many Ways?
Math is
Everywhere!
Which number
doesn't belong?

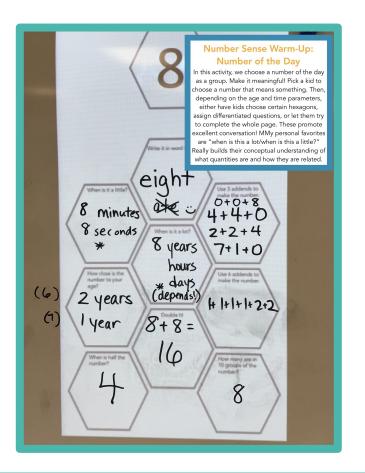
Number Sense Examples





Number Sense Examples





The minilesson is a short, 10-15 minute lesson where the teacher directly instructs the class using examples. During the minilesson, there are many opportunities for students to share meaningful discourse regarding the mathematical concepts being presented.

Minilesson

Rotations

Students spend time rotating through differentiated stations. Typically, they first practice what they learned with independent practice. Then, they work on fluency, problem solving, and number sense with a variety of meaningful activities at their level.

Teachers keep careful records and pre-assess their students to determine the best grouping for math workshop. During the teacher station, teachers either use a scaffolded approach to instruction (manipulatives, models, organizers, etc) or stretch student thinking with challenging activities related to the class math goal for the day.

Teacher Station

Closing

Students come back together to reflect on the work they've done and what they've learned. This is another excellent opportunity for mathematical discourse.

Low Floor, High Ceiling

- By designing activities that are engaging, mentally stimulating, and accessible to all learners, equity and excellence will certainly exist within your instructional practice.
- "Low floor, high ceiling" refers to activities that all learners can engage in regardless of specific ability level.
- Strategic questioning on the part of the teacher can help support these types of activities.
 - Mathematical Practices: Questions to Develop Mathematical Thinking

Example: 3 Act Math

Act I:

Introduce an <u>inquiry-based</u> <u>problem.</u>

What do you notice? What do you wonder?

Help students to create a **range of estimates** with their actual estimate included.

What information is needed to solve?

Act 2:

Give students <u>more information</u> to <u>help</u> them solve.

Support the productive struggle!

Students solve by any method that makes sense to them.

Perfect place to question students and promote academic conversation.

Act 3:

<u>Answer is revealed</u>, usually through video.

Another great opportunity for conversation!

Discuss where the students' answers fell within their ranges

Incorporate mathematical practices students used to solve the problems.

Mathematical Discourse

MATHEMATICS

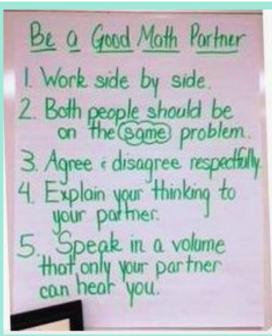
Is not about numbers, equations, computations, or algorithms: it is about

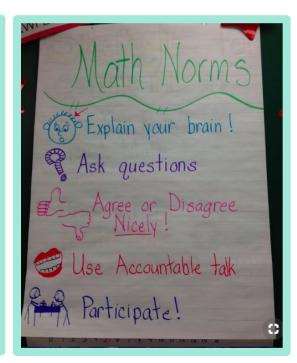
UNDERSTANDING.

William Paul Thurston

Math Conversation: Establishing Norms







Mathematical Discourse to Understand Mathematical Ideas and Utilize Mathematical Practices

What are teachers doing?

Engaging students in purposeful sharing of ideas, reasoning, and approaches, using varied representations

Selecting approaches and solution strategies for whole-class analysis and discussion

Facilitating discourse among students by positioning them as authors of ideas, who explain and defend their approaches

Ensuring progress toward mathematical goals by making explicit connections to student approaches NCTM, 2013

What are students doing?

Presenting and explaining ideas, reasoning, and representations to one another in pair, small group, and whole class discourse

Listening carefully to and critiquing the reasoning of peers, using examples to support or counterexamples to refute arguments.

Seeking to understand the approaches used by peers by asking clarifying questions, trying out strategies, and describing approaches used by others.

Identifying how different approaches to solving a task are the same and different.

Practices for Orchestrating Productive Math Discussions

Anticipating students' solutions to a mathematical task

Monitoring students' in-class, "real time" work on the task

Selecting approaches and students to share them

Sequencing students' presentations purposefully

Connecting students' approaches and the underlying mathematics

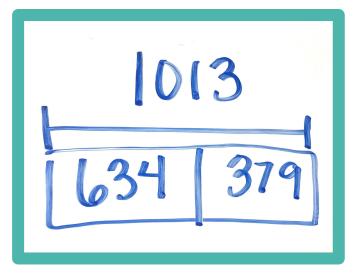
Conferring



Heinemann and Stanford Education, 2016

- The practice of talking with students as they engage in meaningful work with the purpose of uncovering their thinking and supporting learning in the moment.
- Allows for scaffolding practices with each student and makes learning accessible.

Gerardo's book has 634 pages. So far he has read 379 pages. How many more pages does Gerardo need to read to finish his book?



Your turn:

- Turn and talk to a peer.
- Analyze student work.
- Discuss which questions from the 100 Questions that Promote Mathematical Discourse handout would be best for conferring with this student.

Providing Feedback

Establishing effective math discourse routines and engaging in conferring in mathematics will provide teachers the ability to:

- shift feedback from just procedural to meaningful, effective and personal
- feedback becomes grounded in evidence

Conferring with students provides the student with a safe, comfortable setting to express their thinking and ideas

These opportunities are invaluable to the teacher and the student, building relationships that foster positive learning outcomes, equity and excellence for all learners.

My Next Steps





Yes, I am ready!



- -I would like to try with someone.
- -I need to see more examples.
- -I want to read about it on my own.
- -I want to plan with another teacher.
- -I need/want to...

I need some more time to think about this before I decide on my next steps.

-My class needs to start with the behaviors.

- -My class needs to start with active and focused listening.
- -My class needs to start with academic conversation skills.

EQUITY

 What does it mean to have equitable opportunities within a guaranteed and viable curriculum?

 How might more equitable opportunities advance student learning and educator practice?

Would you now enhance or amend your earlier thoughts?

Tools 3-6: Electronic Tools

Links that provide helpful information when choosing and evaluating materials to support district curricula.



https://www.edreports.org/



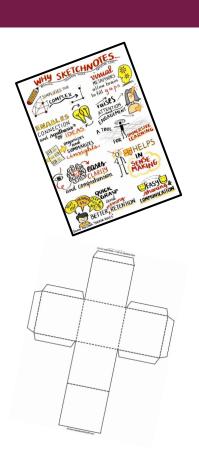
https://ies.ed.gov/ncee/wwc/



https://www.evidenceforessa.org/



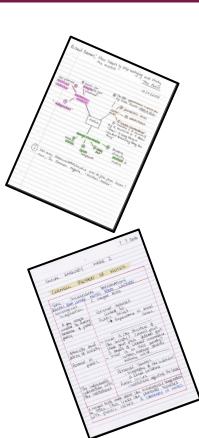
Wrapping Up



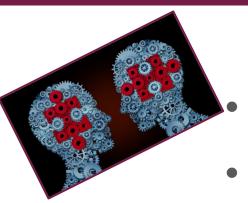
Take a moment to finish your notes!

- Add final touches to your sketch notes based on what you learned, or
- Complete any empty squares on your die, cut it out and glue/tape together, or
- Complete your notes in another note taking form you chose.





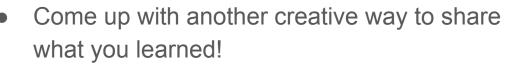
Wrapping Up

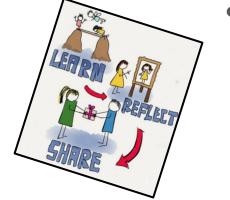


Share What You Learned!

Show your table group your sketchnotes and explain one drawing, or

Role your die and explain the notes you took on the side that is facing up, or











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