

3rd-5th Grade: Continuing the Journey

Use the padlet to record reflections, next steps, comments and/or questions.

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Focus on Grade/Course - Level Content

Question #1

How will you support and promote student's learning grade-level content while providing just in time supports, as needed, beginning on day one of this school year?

Teach using quality tasks and equitable teaching practices. Analyze student work and support with purposeful questions, scaffolds, tools, and progressions.

Make math visible so all have access.

We will use an iReady diagnostic to determine their strengths.

Provide assessments and keep notes of individual student needs.

Introduce number talks and model peer-tutoring - Day 1.

I think pre-assessments can help with knowing where students are prior to beginning a lesson. Formative assessments will also allow students to show what they know, and where they teacher will need to go next.

Providing learning through Puzzles

Learning in math is really accentuated by hard puzzles which are grade appropriate

Formative Assessment

We will use the Unit Screeners to help inform us of where we need to scaffold throughout the unit.

Quality tasks and student choice

Use last year's end of year diagnostic data to not only notice areas where students struggled but to notice and then capitalize on their academic strengths to make connections to new grade level content.

On day one I would like to provide a problem based real life math with current grade content and observe student group responses- sharing as they work.

Start with a problem of the day to engage students from the beginning. Allow students to work with a collaborative group.

Get rid of the deficit mentality. Our students all come in with strengths!

Question 1

Teach through the math practices.

I love giving a diagnostic from the year before to start filling those gaps right away!

Use quality diagnostic assessment

Build a mathematical community

Create an environment where students feel safe, take risks and ask questions to further their learning.

Multiple entry points, encourage risk taking and growth mindset

Use mathematical routines as a formative tool , such as WODB, N/W, T and T to determine conceptions and misconceptions.

Purposeful planning where the focus is on identifying grade level content and identifying related standards to help students make connections and encourage coherence.

Focus on Grade/Course - Level Content

Question #2:

How will you focus on student strengths and keep the joy and humanity in teaching and learning?

Base new learning on students' strengths.

Bring in real life math content that students can connect with, share, and build confidence with.

Use game-based activities to encourage engagement and confidence.

Laugh, play games, and have fun as I learn what their strengths are.

I plan to listen to and watch student thinking, provide space for them to share their thinking, and add to each other's thinking. Ask both assessing and advancing questions when I confer.

Encourage a guided math model, centers, application tasks

Allow students to share different ways of solving problems and encouraging them in their thinking process.

Always start with having students share their own ideas for how to possibly solve any given problem. They simply know so much that we can learn from as teachers.

Students share various ways to solve problems.

To promote delight in mathematics I will bring in the math and art connection with hands-on learning eg. paper-folding in geometry

Listen to student voice as they respond to prompts and building off of their enthusiastic ideas.

Celebrate student successes and encourage the students to celebrate each other.

Creating tasks centered around students' interests.

Open up questions so that all learners have an entry point. Validates that all students' voices matter. Using 'open' math routines like 'Notice/Wonder', 'WODB'

Create tasks that provide entry points for all

Focus on Grade/Course - Level Content

Question #3

What will you do to inform families of the essential learning and work within your system to eliminate tracking?

Provide clear communication with parents.

Content news letter

Add in more low floor high ceiling tasks

Communicate weekly with parents on the goals and direction we are headed with in math.

Parent letters in multiple languages if needed. Explaining the content and how it relates in the real world.

share puzzles with parents

Show parents connections between the way they learned math and the conceptual building experiences their students will experience.

Demonstrate to parents how we now teach Math.

Not only share that detracking will happen but help parents to be confident that their student CAN be successful. Through varied parent meetings in varied spaces (in school, after school, in community space, other?)

Help parents become a bigger part of the mathematics process....perhaps holding math nights to help them understand better how we are teaching math.

Have a parent help website to provide resources.

Use short videos to share with parents to share.

I was a student that struggled in math and did not think that I was capable of "doing" math. Teachers need to encourage children and highlight their strengths especially for kids who think they are dumb in math.

Accessible productive struggle activities that engage and inspire confidence.

Foundations for Equitable, Effective Teaching Practices

Question #4

What are challenges or barriers to cultivating equitable instructional mindsets and practices and how can this be addressed?

Poor curriculum resources that do not allow for discourse.

Pacing and time allotted to the subjects.

A challenge to equitable instructional mindset is the belief that some children are not as smart as others (stereotypes). Teachers need to reflect on their thinking and reminding themselves that all children have the ability to have mathematical success.

Some educators do not understand how culture impacts mathematics, and this can be a barrier in what and how they teach.

the on line medium does not allow the teacher to see how the student is solving or approaching

Help students to develop a growth mindset and the idea that they don't know something YET.

District policies that do not support effective, equitable practices.

teacher efficacy - belief they can't make change

Getting teachers, parents and students all on the same page!

Teaching from behind as a coach and listener to really value and understand the students.

Pacing guides that leave little to no room for explorations.

Teacher's insecurity with knowledge of the development of math concepts "That's not how I learned..."- process driven.

structural/institutional racism and unproductive beliefs about what students can do mathematically

Foundations for Equitable, Effective Teaching Practices

Question #5

What are ways we can get to know our learners/students, that is, who they are, what are their strengths, interest, cultures and hobbies as we begin the school year and then use this to plan intentional instructional experiences that support access to grade-level content?

Team building and class building.

survey questions - listen to students, ask for feedback

share items about yourself - build a community of respect and learning together

Ice-breaker activities

Interest surveys, mindset surveys, listen to information from prior teachers as well as families.

Small group activities where students share ideas and thought processes in solving problems. Giving each student an opportunity to share his/her thoughts, observations, ideas...

SLOW DOWN...

Interest surveys and social emotional learning time to get to know students

Pre-unit task exploration with dialogue.

Visible Learning states that relationships are key. Less is more in this area!

Center collaboration and discussion then listen to what the students are saying.

Student interviews, if possible family visits, community walks & attending activities off school grounds (if possible)

See every math lesson as an opportunity to get know your students both as mathematicians and as people.

Foundations for Equitable, Effective Teaching Practices

Question #6

How can we cultivate and strengthen a sense of community in our classrooms and our schools?

Focus on social-emotional learning for all students

using small groups with breakout rooms

Mindset messages and math community building.

Co-construct norms to create a collaborative, affirming, inclusive culture in the classroom

Work on Growth-mindset and building our community through class meetings.

Make sure students see errors as opportunities for learning .

Students doing the talking and teachers only facilitating.

More collaboration, sharing of ideas, project-based learning.

All student's ideas are heard, encouraged, appreciated, and applauded.

Begin the year knowing that mistakes makes us stronger

Start the year with building math mindset activities and discussions. Allowing students to discuss how mindset is helpful and what to do when we get stuck.

Social emotional learning

Focus on practices - label, practice, and name it while working on these ideas.

Restorative Circles

Deliberately assign competence to students who are perceived as having lower ability or social status.

Group worthy tasks and social justice math tasks.

Toolkit for "Mathematics in Context: The Pedagogy of Liberation"

Editor's note: The following toolkit is adapted from Dr. Cathery Yeh's manuscript "Towards Justice-Oriented Mathematics." It is used here with her permission. This toolkit will help educators consider how to "humanize math," as Dr. Cathery Yeh and Marian Dingle put it, using Learning for Justice's Social Justice Standards.

LEARNING FOR JUSTICE



Foundations for Equitable, Effective Teaching Practices

Question #7

How can I help emphasize the importance of connecting mathematical ideas that interconnect to provide a coherent approach?

Understand the concepts/standards learned/taught in previous grade levels in order to access prior knowledge for scaffolding

Train students to ask higher DOK questions for each other and teachers

Make time for meaningful connections and representations that students have.

Develop student created problems and projects that connect subjects.

Foundations for Equitable, Effective Teaching Practices

Question #8

What are structures that are needed to support a collaborative culture for our mathematics team(s)?

Time, norms and expectations for continual collaboration.

Strong PLCs where we plan, look at student work and plan supports.

PD, PD, PD!!! (And make it FUN!!)

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Time is essential.

Time for collaboration between teachers.

Time for team meetings/planning

designated time to plan, collaborate, review, and reflect with colleagues.

Systems and structures for collaborative inquiry cycles (i.e. PLC or PDSA Cycles). Dedicated time and space held sacred by the school for this space. Cycles, roles/responsibilities, and scheduled cycles for the year ensure the time is productive for all with a focus learning together as a team based on what we are doing together in our separate classrooms.

Planning for Advocacy

Question #9

How will you disrupt practices that marginalize students?

Quit using a deficit based view. Start holding high expectations for all and hold the belief that all kids can learn.

using culturally diverse communication as well as examples

high expectations for all students... giving families ways to help their students improve and build confidence...

Use asset based language vs deficit based learning.

When confronted with "deficit thinking" such as a term, "they can't do this..." ask, "what CAN they do?"

Don't "dumb" down the curriculum and teaching methods.

establish norms that include language used to describe students

Quit tracking kids!

Question assessment and grading practices that dehumanize students.

employ low floor high ceiling tasks that provide entry points for all learners

Co-create with grade level teams disruptive practices and how to advocate for better practices. Ongoing professional learning with specific actions.

STOP tracking!

Disrupt the generational "I'm not a Math person." or "That family has never been good at math." conversations.

Shift and call out deficit language

Keep them all in the classroom working together

Reframe deficit based thinking into asset-based.

Have more scaffolded learning through fun hands on stations. Maybe math projects (everyone working on the project has a role) where students can work together and explain their projects and thinking to the class

Disrupt conversations that reflect deficit thinking. Willingness to have courageous conversations.

Educate students about different cultures and encourage them to respect others.

Hi-light role models that they can relate to.

Teach just in time and not teach down

mixed flexible grouping

Acknowledge that there are racial and cultural barriers and listen to the people that are effected by them the most that actually experience them.

Insist on more parent/guardian interactions to inform and empower them. (math nights, game nights, etc.)

Recognize and celebrate student strengths rather than focusing on what they can't do

Raise awareness and engage in book studies around books like the Impact of Identity in K-8 Mathematics. Then form an action plan together collectively.

The Impact of Identity in K-8 Mathematics: Rethinking Equity-Based Practices

Each teacher and student brings many identities to the classroom. What is their impact on the student's learning and the teacher's teaching of mathematics? This book invites K-8 teachers to reflect on their own and their students' multiple identities. Rich possibilities for learning result when teachers draw on these identities to offer high-quality, equity-based teaching to all students.

NCTM



On a classroom based level, use low ceiling/high floor problems that allow all students access and entry points to solve them.

Read

<https://www.mathedleadership.org/docs/resources/positionpapers/NCSMPositionPaper19.pdf>

Detracking 2021.pdf

by Association of State Supervisors of Mathematics

GOOGLE DRIVE

Detracking School Mathematics
to Ensure Equitable and Empowering
Programs and Opportunities

A Position Statement from the
Association of State Supervisors of
Mathematics (ASSM)
February 2021

Closing the Opportunity Gap: A Call for Detracking Mathematics

*A position statement from NCSM:
Leadership in Mathematics Education*

Our Position

NCSM, Leadership in Mathematics Education, believes that all students should have access to high-quality instruction and post-secondary educational opportunities. While we acknowledge that many factors hinder such student access, in this position statement we call for the cessation of one clear, addressable factor: the practice of tracking. As a practice, tracking too often leads to segregation, dead-end pathways, and low quality experiences, and disproportionately has a negative impact on minority and low-socioeconomic students. Additionally, placement into tracks too often lacks transparency and accountability. Overall, tracking does not improve achievement but it does increase educational inequality. In light of this, NCSM calls instead for detracked, heterogeneous mathematics instruction through early high school, after which students may be well-served by separate curricular pathways that all lead to viable, post-secondary options.

Tracking: Policies and Practices Widening the Opportunity Gap

NCSMPositionPaper19.pdf

PDF document

WWW.MATHEDLEADERSHIP.ORG

Read

https://drive.google.com/file/d/1eCrxrDzNz4IYV_G7F5GolkwuxljRI1q8/view

Planning for Advocacy

Question #10

How will you advocate for equitable structures (for teachers and students)?

Sharing this document and webinar with my admin and fellow teachers in my building....start the conversation.

Keep having conversations about equity and how we can keep pushing our community forward in that area.

Model scaffolding with rigorous problems

Collaborating closely with teacher teams and building level administration to make the necessary conversations

Sharing research regarding the need to teach grade level material rather than remediate. Support teachers with tasks and ideas to scaffold as needed.

Take note of individual student needs and adjust instruction accordingly... differentiate.

Share this resource and others with my PLC at the beginning of the year to set the stage for a shift in our approach.

Continue with committee of multiple stakeholders. Keep advocating...it takes so much time to get there but the end is worth it

Sharing this with our Equity team.

Frame questions in PLCs as what do kids know? vs what they can't do

Find an ally to speak up when we see practices that are not equitable.

Sharing information with teachers (special ed) that may not have access to this information.

Make sure that all teacher voice are being heard.

Being flexible in our approach to teaching skills/standards

Keep encouraging "courageous conversations" - Engage in conversations that look focus on student assets, not deficits on an ongoing basis.

Vertical and horizontal PLC's

Share this document with the district and school based teams.

Starting conversations with other stakeholders open to these ideas.

have various components for assessments for math: computation, thinking, procedure done, etc.

Disrupt teachers who say they are "Not a math person" or that they hate math.

Step out of my comfort zone
