Priming the Primary Mindset for Critical Thinking Tasks
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Purpose and Goal Today

- To get students ready to engage in a critical thinking task
- To put students in a mindset ready to create and persevere
Look Fors

What prior knowledge will your students need before engaging in this task?
Taste the Rainbow

Adapted from gfletchy.com
“Share the Love”
Estimate

If they share the skittles evenly, how many will each kid get?
What do we need to know in order to solve this problem?
Act 2
Act 2
What prior knowledge will your students need before engaging in this task?
Vocabulary

Mini Lesson on Notice and Wonder

- **This Plus That** by Amy Krouse Rosenthal
- Ask them what they notice
- Ask them what they wonder

Mini Lesson on Estimation

- **Dragons Love Tacos** by Adam Rubin
- Explain estimation
- Have them make estimation every few pages
Building Vocabulary - Notice & Wonder
Building Vocabulary - Estimation

Dragons Love Tacos

by Adam Rubin
illustrated by Daniel Salmieri
Other Books for Notice, Wonder, Estimation

- Socks! by Tania Sohn
- This Is Not My Hat by Jon Klassen
Building Perseverance
Perseverance

Mini Lesson

- **The Most Magnificent Thing** by Ashley Spires
- Introduce the Tinkering chart to students
  - Cognitive Learning Map adapted from Cathy Humphreys and adapted by Hailey Gilmore, Cristina Charney, and Janeal Maxfield
- Show the Tinkering Chart and follow her journey along the chart
- Refer back to the story frequently during a task
Cognitive Learning Map adapted from Cathy Humphreys and adapted by Hailey Gilmore, Cristina Charney, and Janeal Maxfield.
Models and Manipulatives

Mini Lesson

- **The Dot** by Peter H. Reynolds
- Bring out manipulative and let them create with them.
  - Pattern blocks
  - Tangrams
  - Tiles
- Let students share their creations and strategies.
Manipulatives

- When introduced in a lesson, point out we are adding to our toolbox.
- Always be thinking about unconventional ones that we could use with certain tasks
  - Skittles bags, pebbles, bolts
- Show them the manipulatives in the classroom and where they can access them.
Manipulatives

- Where do you keep your manipulatives?
- Are they accessible to students?
- How do you encourage students to use them?
- How do students become autonomous with manipulatives?

Take a minute to write and think about how you will address these questions.
Sharing Strategies and Ideas

- Get students talking about:
  - Creations
  - Strategies
  - Models they used
  - Ask them how they started a problem
Productive Struggle and Mistakes

“When we teach students that mistakes are positive, it has an incredibly liberating effect on them.”

-Jo Boaler, Mathematical Mindsets
“Figure 2.1 represents brain activity in individuals with a fixed or growth mindset, with the growth mindset brains lighting up to a much greater extent when mistakes were made.” -Jo Boaler, *Mathematical Mindsets*
Reflect Back to Your Experiences
Activity - Shared from a teacher in Mathematical Mindsets

1. Have the students crumple a piece of paper.
2. Have them throw it at the ground or the board letting out frustrations of when they make a mistake.
3. Open the paper and trace the lines.
4. Place the word “brain” in the middle.
5. All those lines now represent brain growth.
Productive Struggle and Mistakes

- Refer back to the story *The Most Magnificent Thing*.
- How did the girl handle struggle and mistakes?
- How did her brain grow?
Taste the Rainbow

Anticipate what your students might use in this task

- Manipulatives
- Models
- Vocabulary
- Strategies
Make a Plan

What do you feel are the most important things for your students to know before beginning a task?

- Choose a mini lesson
- Set a date!
Thank you so much for coming!