



STRATEGIES FOR LANGUAGE
USE DURING MATH FOCUS
WALL INSTRUCTION

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LEARNING TARGETS:



I can plan a focus wall time where students are actively engaged and using language.



I can use strategies to strengthen students' problem solving skills and math vocabulary.

ONLY IN MATH PROBLEMS CAN YOU BUY
60 CANTALOUPEs AND NO ONE ASKS
WHAT THE HELL IS WRONG WITH YOU.



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HOW CAN WE HELP OUR STUDENTS DURING MATH TIME? → 5 STEPS:

- ❖ Step 1: IMPLEMENT A DAILY FOCUS WALL ROUTINE
- ❖ Step 2: USE PRECISION PARTNERS
- ❖ Step 3: MAKE PROBLEM SOLVING A DAILY DISCUSSION
- ❖ Step 4: HELP STUDENTS WITH PROCESSING

VOCABULARY WORDS

- ❖ Step 5: HAVE A PLAN!





FOCUS WALL



❖ Due to the rigorous pacing of most math curriculums, this is our opportunity to **review** and **preview** math concepts

❖ During focus wall, **language use** tied to math can be implemented in several simple ways

❖ **Problem solving and vocabulary**

(two of the most difficult areas for students) can be addressed using **engaging** activities

❖ It's **fun** and **interactive, non-threatening**...students enjoy it!

PRECISION PARTNERS

❖ How to break students into precision partners (*this is an Anita Archer strategy for partnering*):

Archer strategy for partnering:

- List students in order from 1-26 etc. with 1 being the highest and the last student being the lowest in a skill.
- Cut the list in half, match the middle student with the highest student. At the end of the list, there will be a middle student with the lowest student.

❖ Example Class:

- | | |
|------------------|------------------|
| 1. Sue (highest) | 11. Ed (middle) |
| 2. Jeff | 12. Ben |
| 3. Bill | 13. Rob |
| 4. Betty | 14. Tom |
| 5. Bob | 15. Sue |
| 6. Katie | 16. Brock |
| 7. David | 17. James |
| 8. Steve | 18. Sarah |
| 9. Tina | 19. John |
| 10. Ted (middle) | 20. Joe (lowest) |



PRECISION PARTNERS

- ❖ LET'S HAVE SOME FUN!
- ❖ Now you will have the opportunity to break into precision partners
- ❖ To simulate an actual class, each person will choose a number to represent how they ranked within our classroom's last math assessment
- ❖ After you choose a number, we will match up the numbers using the precision partnering method
- ❖ Find your partner and find a seat next to them
- ❖ (In your classroom, students would not know their "number" or find their partner in this way.)

How I see math word problems: If you have 4 pencils and I have 7 apples, how many pancakes will fit on the roof? Purple, because aliens don't wear hats.



your  cards
someecards.com

PROBLEM OF THE DAY, USING PROBLEM SOLVING FRAMES:

❖ DAY 1 → PRESENT THE STORY PROBLEM:

- BIG font
 - Use students' names/personalize (helps with attitudes, motivation, understanding)
 - Read the problem several times with students
 - Discuss the problem, by highlighting (or underlining/circling) what is important for solving the problem
 - Pull out the characters, setting, and keywords/special conditions
- ❖ After discussing, have students solve the problem independently (can leave their answers anonymously, if they wish)
- ❖ Teacher looks over their answers to find misconceptions, areas of concern
- [POD VIDEO #1](#)
 - [POD VIDEO #1b](#)

PROBLEM SOLVING FRAMES,

POD DAY 2:

❖ DAY 2 → REVIEW THE PROBLEM

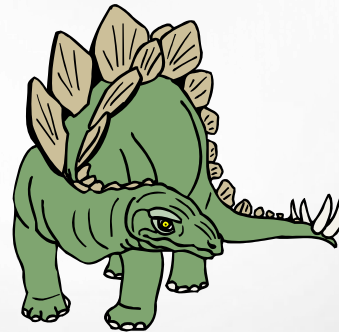
- Read the problem and revisit the important information and the characters/setting/keywords and special conditions
 - Discuss the results from the first attempt at solving
 - Model how to solve the problem, by using student work as examples
 - Change the names and numbers in the problem, but keep the story frame/situation the same
-
- ❖ Have students solve this new problem independently
 - POD #2VIDEO
 - POD#2b VIDEO

PROBLEM SOLVING LESSON

- ❖ Now you will get to participate in a problem solving frame lesson
- ❖ **PROBLEM OF THE DAY:** 15 WABE teachers were at the cafe. $\frac{1}{3}$ of them were sitting down enjoying breakfast. $\frac{3}{5}$ of them were in line waiting to order coffee. How many teachers were sitting down? How many were standing in line? How many were in the bathroom?
- ❖ $15/3=5$ sitting down, $15/5=3$ and $3 \times 3=9$ standing in line, $9+5=14$. $15-14=1$, so 1/15 (or 1 teacher) is in the bathroom.
- ❖ *Later on this afternoon, you will get to work on planning our own problem solving*

VOCABULARY JOKE...

❖ What do you call a dinosaur with an extensive vocabulary?



❖ Answer: A Thesaurus

VOCABULARY: CONTENT DICTIONARIES

- ❖ Have vocabulary words posted in the focus wall area with visuals
- ❖ Introduce words that the student have some prior experience with
- ❖ Have students come up with a student-friendly definition with their partners and share with the whole group
- ❖ Next, have partners come up with a sentence using the word and then draw a picture of the word
- ❖ Different groups share out their sentences and pictures [Calendar](#)

[Focus Wall Materials\Content Dictionary.docx](#)

- [Word of the day video 1](#)
- [Word of the day video 2](#)

VOCABULARY LESSON

❖ Now you will get to participate in vocabulary content dictionary lesson

❖ WORD OF THE DAY:

• Precision Partners → Work with your partner to:

- Think of a teacher-friendly definition
- Draw a picture to illustrate the word
- Use the word in a sentence

❖ Later, you will have an opportunity to develop a list of vocabulary words for implementing Word of the Day in your classroom

❖ *Definition: A way of partnering students to enable them to learn and share ideas within their zone of development*



THE IMPORTANCE OF A PLAN

- ❖ Think through your current focus wall time and think about how you can make it more intentional or how you can start a focus wall time in your classroom starting Monday
- ❖ Having students produce something during this time is important so you can use their work as a formative assessment for skills you review
- ❖ Some examples of what students can use are:
 - Whiteboards (individual or one shared between partners)
 - Math Notebooks
 - Focus Wall packets or work pages

PLANNING TIME

❖ It is important to make sure you have a plan in place for your focus wall and math time so that you can be intentional in your teaching. Your plan should include:

- **Standards or topic of study** (Past, present, and future topics should be included to help reteach, reinforce, and preview grade level learning targets)
- **Vocabulary** words that will be covered
- Possible **problem solving questions**

❖ Other ideas to keep in mind:

- **Precision partners** and what **production tools** you would like students to use during focus wall so that it is an effective formative assessment opportunity

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RESOURCES AND REFERENCES

❖ Handouts and power point for this presentation can be found on my website: <https://sites.google.com/site/erynntorrey/> or by emailing me: teachertorrey@gmail.com

❖ Archer, Anita (2003). Vocabulary Development,

<http://ela.fcoe.org/sites/ela.fcoe.org/files/Anita%20Archer031.pdf>

❖ Hart, Janis M. (1996). “The Effect of Personalized Word Problems.”

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