ADD ME Advanced Moves

SUMMARY

Advanced Moves: Adding new, substantial (but still sustainable) practices to create more space for students to bring their own experiences and values to learning activities:

- **L.E.D. Interviews** – Students conduct LED interviews with family, friends, or community members' experiences learning mathematics.
- **Family, Friends, or Community Scavenger Hunts** – Find a person who…; Take a picture of…; Share an example of…
- **Community or other context-based research projects**
- **Monthly Modeling Challenge** – Devote a day (e.g. first Friday of every month) to a mathematical modeling task
- **Celebrate math-themed holidays** – Pi Day, Mathematics and Statistics Awareness Month

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1. **Learn-Explore-Discover (LED) Interviews** – Students can play the role of investigative reporters, historians, etc. and conduct LED Interviews with family, friends, or community members to learn, explore, and/or discover their experiences with using mathematics.

LED Interviews can be done monthly and the students can have free choice about who to interview or be given varying guidelines each month

e.g. Must be someone at least 30 years older than you; no more than 2 years older than you; in your family; outside of your family, who works at a store, church, or other establishment you go to frequently, who they admire…etc.

Interviews should start with a question about how they use math in general, then focus on a specific concept or idea being learned in class. If the interviewee claims not to use math, or the particular concept, they should work together to **explore** their daily routines or work duties to try to **discover** a way they might use it without realizing it. If they cannot come up with anything, they should discuss why, and/or if there are ways it might be helpful.

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2. **Family, Friends, or Community Scavenger Hunt –** A series of tasks or artifacts the student must collect related to what is being learned in class. This can be 2-4 times per year. Students can be asked to…

   - Find a person who… (e.g. has written an algebraic expression or equation outside of school);
   - Take a picture of… (e.g. the graph of a linear function);
   - Share an example of… (e.g. how you can use variables on the weekend)

3. **Community or other context-based research projects** – Students can select a topic of their choice and research how algebra is part of things that interest them. This can make a great final project!

   e.g. The Algebraic features of …New York City, Music, Video Games, Sports, Art, the Ocean, Boating…

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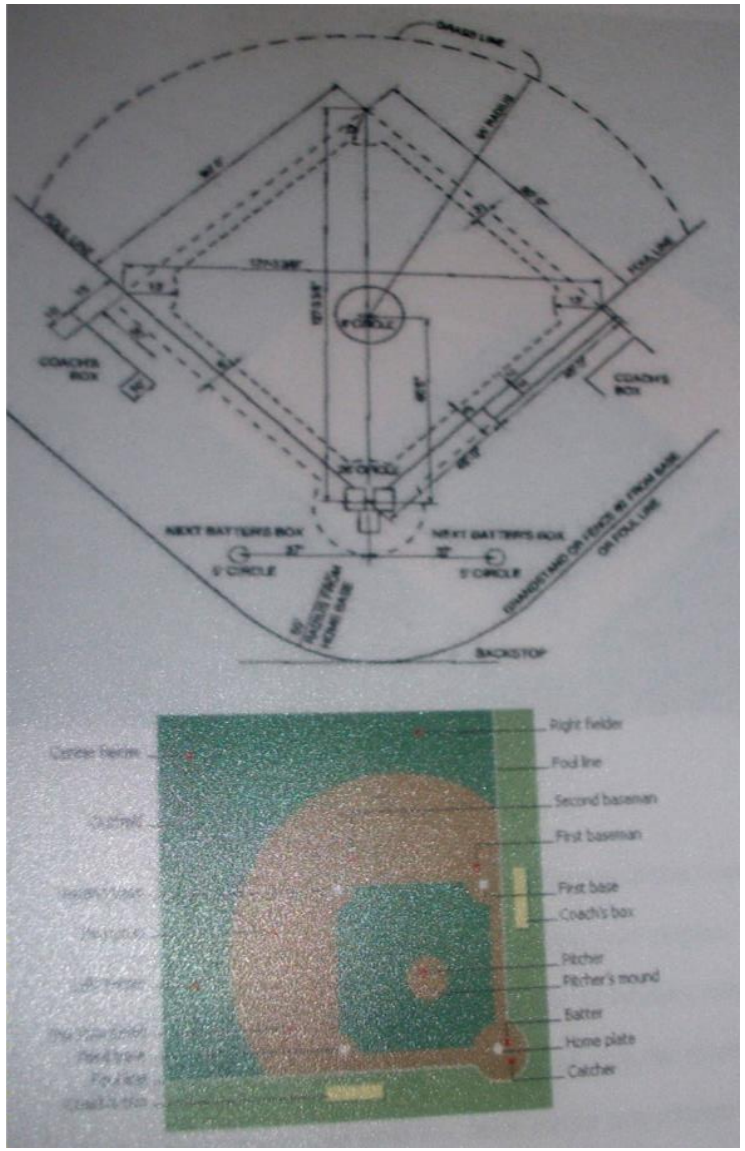

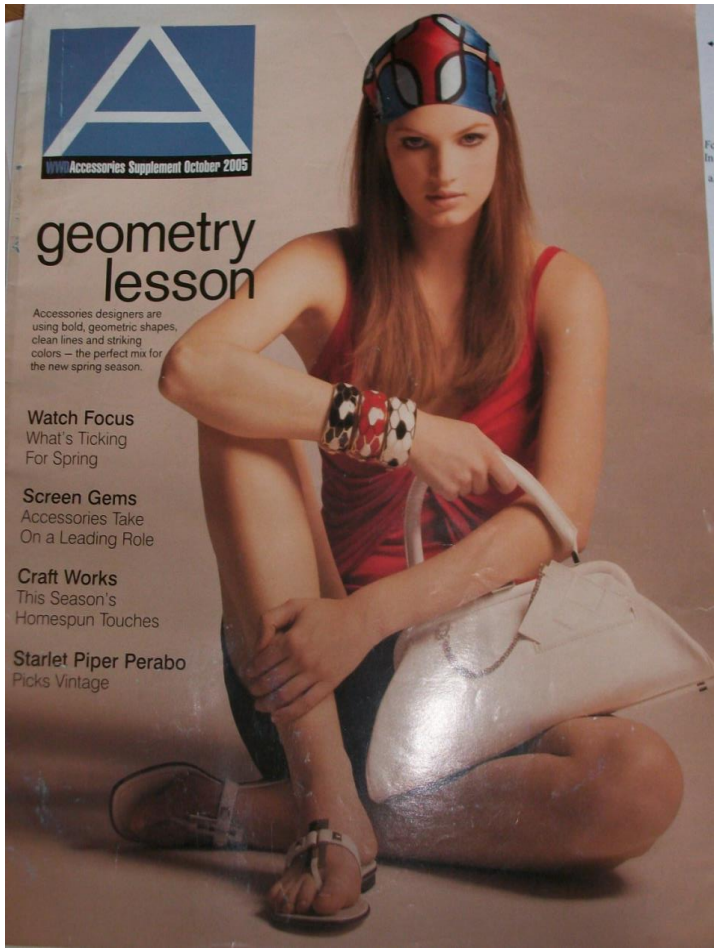

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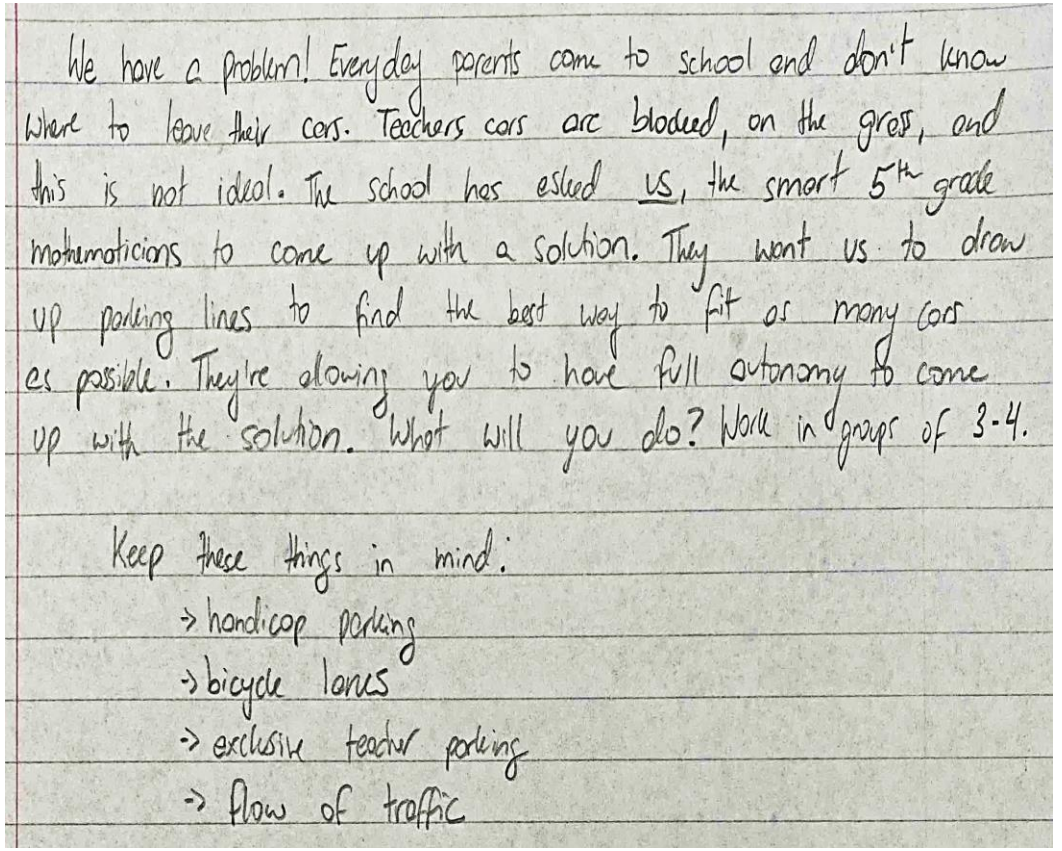
4. **Monthly Modeling Challenge –** Once a month, consider devoting a class period to a mathematical modeling problem (MMP). MMPs meet the following criteria:
   - Open ended
   - No correct answer
   - Require students to make assumptions
   - Ask students to propose AND justify a solution

MMPs allow students to bring their own experiences, resources, ideas, and perspectives to solving a problem.

Ex. You have a week off from school and you want to visit four colleges – University of Florida, Florida State University, University of South Florida, and Florida International University. Create a schedule and a plan for visiting all four universities during your spring break.



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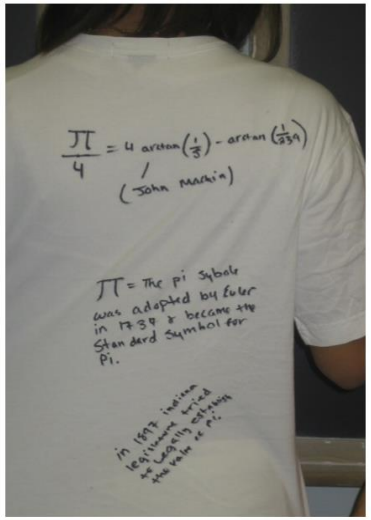
5. **Celebrate special math-themed holidays**

Pi Day, Mathematics and Statistics Awareness Month

Give students a chance to get creative and mark the holiday with an image, a poem (pi-ku), a song…



The Pi Song…

Do the π –on the floor
it's the 3 – .14 (point one four)
The number that keeps runnin' runnin'
It'll just keep on runnin' runnin'

First around – then across
then divide – and you'll find
The number that keeps runnin' runnin'
It'll just keep on runnin' runnin'