12.9 Sample Professional Development Activity: Mathematical Practices Playing Cards

Professional development focus or topic: Deepening understanding of the Mathematical Practices

Intended audience: Small group or large group of teachers (any grade)

Outcomes: Teachers will be able to …

- Connect student actions with the Mathematical Practices
- Describe the essence of each of the Mathematical Practices
- Describe distinctions and connections among the Mathematical Practices

Preparation:

- Copy the MP Playing Cards on the next two pages bright paper and cut into cards.
- Download the Mathematical Practices & Student Look Fors Bookmark for each teacher (optional).

Description of activity:

- Distribute one playing card and a bookmark to each teacher. If needed, provide time for teachers to read the look fors for each of the Mathematical Practices on the bookmark.
- Instruct teachers to create their own mini-vignette that illustrates the MP on their playing card. When scaffolding this activity for teachers, you may want to do the mini-vignette activity first (Tool 12.7), so teachers have an idea what you mean by *mini-vignette*.
- After everyone is ready, facilitate teachers forming groups of eight. This can be accomplished several ways: you can seat teachers in groups of eight before you hand out the MP playing cards; you can copy the playing cards on different-colored paper and ask teachers to find seven others who have the same color paper; or you can put colored dots or stickers of some kind on the back of the cards before you hand them out and ask teachers to find seven people who have a red dot, for example, on the back of their playing card. The group of eight should have teachers with MP playing cards 1 through 8, so all MPs are represented.
- Optional: Depending on the size of the group, you could add a step prior to the small-group sharing of having expert groups (e.g., all the MP 1 teachers) form a group and share their vignettes to allow revising if necessary. Then, proceed to small-group sharing.
- Once in their groups, ask teachers to read their vignette and let others in the group decide which MP it illustrates. Allow time for discussion.
- Summarize by highlighting what has emerged from the conversation—likely that student actions (even small ones) can indicate more than one practice; that there are distinct meanings to each of the Mathematical Practices; and that the first step in being able to nurture the development of these practices is thinking about what they actually look like in the context of a math lesson.

Mathematical Practices Playing Cards For Tool 12.9

MP
1

1
MP

MP
2

2
MP

MP
3

3
MP

MP
4

4
MP

Mathematical Practices Playing Cards For Tool 12.9

MP
5

5
MP

MP
6

6
MP

MP
7

7
MP

MP
8

8
MP