



MaPP HSC16 Overview and Rules

High School Challenge '16 @ Lamar

Schedule

Here's an overview of the schedule for the day at Lamar University:

- Registration: 11:45am
- Orientation: 12:15pm
- Opening Puzzle: 12:30pm
- Main Puzzles: 1:00pm
- Solutions Due: 4:30pm
- Wrap-up and Awards: 4:40pm
- Dismissal: 5:00pm (approx.)

Opening Puzzle

If your school turned in a correct solution to the attached HSC16 teaser puzzle, then your team will have a 90 second head start on our opening challenge.

You'll want to find a solution to this conundrum as quickly as you can... finishing within half an hour will earn your team 100 Victory Points, and you'll immediately gain access to your Team Headquarters and five new puzzles. After thirty minutes have passed, this challenge will end and all remaining teams can move on to the rest of today's puzzles (but will not earn any Victory Points).

Main Puzzles

After finishing the opening challenge, you'll receive a packet of five Main Puzzles. Work with your teammates on each puzzle to decode a hidden message. For each correct solution you report to Game Headquarters, your team will earn 100 Victory Points.

EXTRA Puzzles

Five EXTRA Puzzles are hidden across your host campus! You'll need to use the Campus MaPP, along with the solutions to the Main Puzzles, to figure out where they are. When you think you know, check with Game HQ before heading out to collect them.

Each EXTRA Puzzle is an added challenge based on the Main Puzzle which unlocked it. Your goal is to optimize your solution as much as possible, because the team(s) which submit today's best solution for each to Game HQ before the end of the competition will earn an extra 50 Victory Points.

And more?

Other hidden challenges may await you during the competition... you'll have to join us to find out exactly what!

End of the Game

All solutions to Puzzles, EXTRA Puzzles, or anything else are due at Game HQ at the time designated by the local director; players not in line at Game HQ to submit a solution will be turned away after that time.

All players and teachers/chaperones from each team must be present for the wrap-up ten minutes after the game ends to be eligible for awards.

Winning the Game

The team which has earned the most Victory Points by the end of the competition is the winner. If two teams are tied for the same number of points, then the team which solved the five Main Puzzles quickest will be ranked higher. As an example:

	Team Alpha	Team Beta	Team Gamma
Opening Puzzle	solved at 12:05	solved at 12:15	solved at 12:10
Puzzle 1	solved at 3:00	-	solved at 2:00
Puzzle 2	solved at 2:30	solved at 2:15	-
Puzzle 3	solved at 2:00	solved at 2:30	solved at 2:45
Puzzle 4	-	solved at 2:40	solved at 2:00
Puzzle 5	solved at 2:45	-	solved at 2:15
Extra Puzzle 1	best solution	-	-
Extra Puzzle 2	-	best solution	-
Extra Puzzle 3	-	best solution	-
Extra Puzzle 4	-	-	-
Extra Puzzle 5	-	-	best solution
Victory Points	450	400	450
Ranking	2nd	3rd	1st

Additional Rules

- The main rule is to be a good sport! Players should not do anything which would interfere with other teams playing the game.
- Teachers and chaperones are not allowed help players solve puzzles. However, if the teams have any questions about how to interpret a puzzle, you should relay those questions to the organizers.
- Computers, smartphones, and the internet are not allowed to be used during the competition.
- Contact the game organizers in case of emergencies or any issues with these rules.

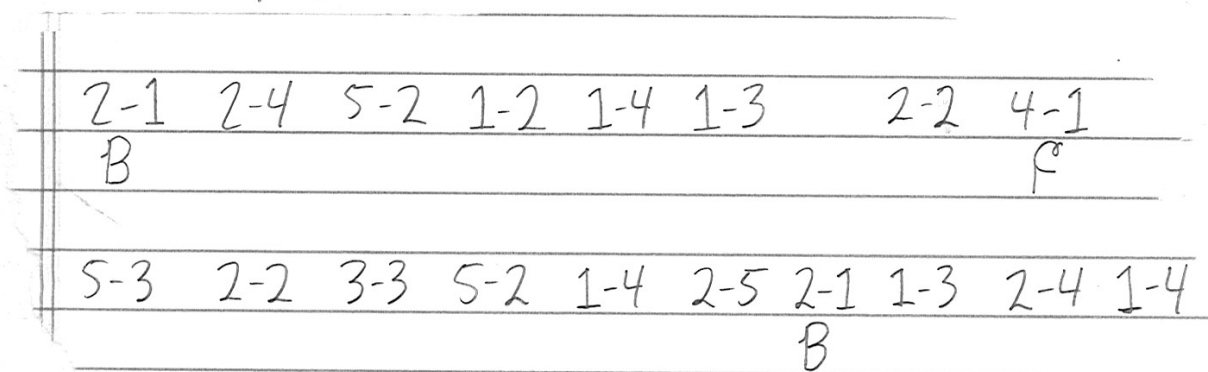
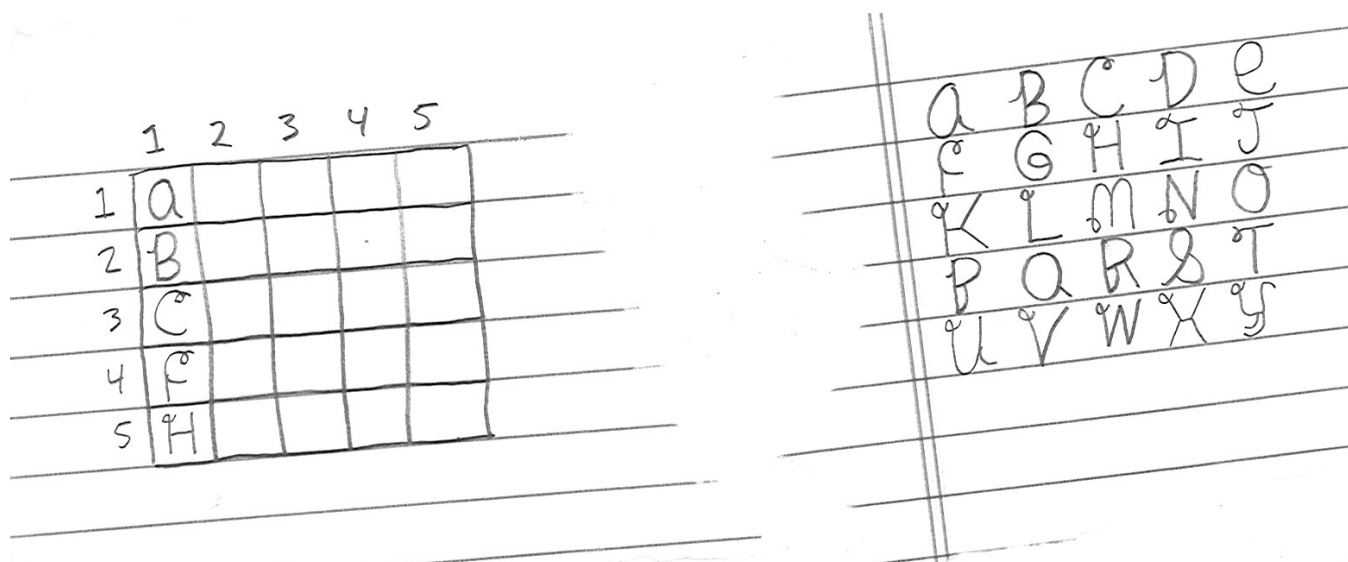


Getting on Top of Things HSC16 Teaser

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Your friend has recently been talking about this field of math called **topology**. Something about donuts and coffee cups being the same thing? You don't know, but you tell yourself you'll look it up on Wikipedia later.

She's also into **puzzles**, so it's no surprise when she hands you three scraps of paper with a bunch of weird letters.



“Did you know topology can be useful in OCR -” (**optical character recognition**) “- techniques? Using this font, you can make five groups of five topologically equivalent letters. See, the A and the G are both drawn as a single loop with a curve sticking out.”

“Anyway, we’re looking for one more player on our school’s **MaPP High School Challenge** team. I put the location of our next team meeting in that puzzle. Figure it out and I’ll see you there!”

*Decipher your friend’s message by first filling the grid of letters so that each row has “topologically equivalent” letters and is ordered alphabetically. **Teams that turn in a correct solution to this puzzle at MaPP HSC16 registration will get a head-start on solving the opening challenge!***

Solution:
