

## Daily Offerings for *Online Mini-Camp Sessions*: Monday, March 16, through, Friday, March 20.

There are five online sessions each day. The exact same class is offered Monday through Friday.

<i>Grades</i>	<i>Time</i>	<i>Online Session</i>
Pre-K – 2	10:00 am EDT	<p><b>Shape Shifters</b> Shapes are all around us, and form the basic building blocks of modern life. Using wooden squares, rectangles, rhombi, trapezoids, and hexagons, students will discover how shapes are different from each other and how mathematicians identify and name them. Interactive activities and games will teach students about geometrical symmetries and how to construct polygons with many sides, including the tetracontakaihexagon!</p> <p><b>Materials needed:</b></p> <ul style="list-style-type: none"> <li>• a printout that will be emailed</li> <li>• scissors (to cut out shapes prior to session)</li> </ul>
3 – 6	11:00 am EDT	<p><b>Möbius Madness</b> Students construct fascinating topological objects such as Möbius bands, discovering their fundamental patterns and structures. Hands-on activities lead students to discover the surprising properties hidden around every twist and turn!</p> <p><b>Materials needed:</b></p> <ul style="list-style-type: none"> <li>• 4 strips of paper (2 inch x 11 inch)</li> <li>• scissors</li> <li>• tape</li> <li>• markers (2 colors)</li> </ul>
5 – 8	12:30 pm EDT	<p><b>Crazy Dice</b> Once students find the probability of rolling a given sum with a pair of standard dice, they are challenged with finding a different way to number their dice to get the same probabilities. Crazy!</p> <p><b>Materials needed:</b></p> <ul style="list-style-type: none"> <li>• sheet of paper</li> <li>• pencil</li> </ul>
7 – 12	2:00 pm EDT	<p><b>Topological Tic-Tac-Toe</b> The familiar game of tic-tac-toe becomes fun and challenging when we play it on alternative topological surfaces. The typical 3×3 game board is enhanced by gluing together pairs of opposite edges together in various ways, making for more interesting games and mind-bending playing spaces. Students will learn to appreciate the ins and outs of these new objects as they develop strategies to master the mathematically enhanced games.</p> <p><b>Materials needed:</b></p> <ul style="list-style-type: none"> <li>• sheet of paper</li> <li>• pencil</li> </ul>
9 – 12	3:30 pm EDT  except on Thurs, Mar 19, 12:30 pm EDT	<p><b>Evening the Odds</b> The probability of rolling different sums with a standard pair of dice depends upon the sum in question. This activity guides students to find ways to renumber their dice so every sum appears with the same probability. But then, what sums are possible to fit into this scheme? How many different sums can be rolled with equal likelihood? The answers to these questions and more are found in this activity.</p> <p><b>Materials needed:</b></p> <ul style="list-style-type: none"> <li>• sheet of paper</li> <li>• pencil</li> </ul>