

## WHAT TO THINK ABOUT WHEN DESIGNING A CREATIVE AND FUN MATH GAME

## BRAINSTORMING AND PLANNING Where do you notice math in the world around you? To begin thinking about how to incorporate math into the game, generate real-life ideas for modeling the math concept (ccss.math.practice.mp4). Examples may include: Image: money Iplanning **≵** time I distance I measuring 3 I puzzles technology **∛** art Construction How will players go deeper with the math concept? Think about how the game will help all players develop mathematical reasoning, even if the player has mastered the concept. Can you show the math concept without using numbers? Think visually as well as quantitatively about the concept (CCSS.MATH.PRACTICE.MP2). If students use ST Math, you could ask, "How would JiJi show this math concept?" EVALUATION AND IMPROVEMENT Is the math an integral part of the gameplay? Evaluate if the math is integrated seamlessly into the game. You shouldn't be able to play the game without using mathematical reasoning. Are the players using different strategies during gameplay? Players should be given opportunities to develop their own strategy for solving problems in the game. Is the math too easy or too difficult for players? Assess how players are using math during the game and adjust the content to ensure that players are thinking deeply and using mathematical reasoning.

For detailed instructions on how your students can participate in the K-12 Game-a-thon challenge, visit **www.mindresearch.org/gameathon**