



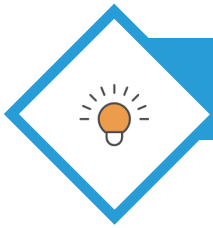
ST Math.
Summer Immersion

Two cartoon characters are positioned above the title. On the left is a pink, donut-shaped character with a single large eye and two small arms. On the right is a green, bean-shaped character with a single large eye and two small arms. The word 'MINI' is written in blue, uppercase letters between them.

MINI
MATH GAME
DESIGN



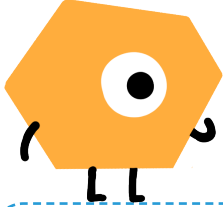
Grades 2-5



BRAINSTORMING & PLANNING

DESIGNING A CREATIVE AND FUN MATH GAME

You will be creating a new game. Begin brainstorming by discussing some of your favorite games you have played. Then think about how you can incorporate math to recreate it.



Brainstorming Ideas

1 What are some games you know? Make a list.

2 From your list, select a game that you want to recreate.

3 What math concept(s) can you include in your game? Some examples include:

- | | |
|--|---|
| <input type="checkbox"/> money | <input type="checkbox"/> time |
| <input type="checkbox"/> puzzles | <input type="checkbox"/> measuring |
| <input type="checkbox"/> fractions | <input type="checkbox"/> estimation |
| <input type="checkbox"/> shapes | <input type="checkbox"/> place value |
| <input type="checkbox"/> addition
& subtraction | <input type="checkbox"/> multiplication
& division |

4 How can you change the game to teach or practice a math concept? Think about how the game will help all players develop mathematical reasoning.

5 Create new rules and directions for your game. Make sure your rules are clear and concise.



TESTING THE MATH GAME

After you have designed your math game, invite a small group to test out your game. Watch them play and learn where you can make some changes to improve the game.



Getting Feedback

- 1 Is the math an integral part of the gameplay? If not, what can you change to include more math?**
Players shouldn't be able to play the game without using mathematical reasoning.
- 2 Are the players using different strategies during gameplay? If not, what changes can you make that encourage strategies?** Players should be given opportunities to develop their own strategy for solving.
- 3 Is the math too easy or too difficult for players? If so, how can you add or remove difficulty?**
Assess how players are using math during the game and adjust the content to ensure that players are thinking deeply and using mathematical reasoning.