

I. Students' information:

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II. Topic Description:

1. Introduction and goal for topic

- + 2048 is an exciting tile-shifting game, where we move tiles around to combine them, aiming for increasingly larger tile values.
- + Our goal is to investigate an algorithm to play 2048, one that will help decide the best moves to make at each step to get the best score.

2. How to play 2048

- + 2048 is played on a 4x4 board. Each position of the board can be empty or contain a tile with a number on it.
- + When we start, there are 2 tiles in random positions, each of them can be a '2' or '4'
- + Moves are performed by shifting all tiles towards an edge (up, down, left, right). When doing this, any tiles with the same value that are adjacent to each other and are moving together will merge and end up with a new tile with the value equal to the sum of the earlier two.
- + After making a move, a new tile will randomly appear in an empty location and its value can be 2 or 4
- + In general, the goal of the game is to reach a tile with a value of 2048. However, the game does not stop here, and we can continue playing as far as possible.
- + If you want to play this game, visit <https://play2048.co/> .