Try this game to see how memory is used to identify errors in patterns.

MATERIALS
- Anywhere from 16 to 100 cards with two different sides. (Example: pieces of paper with one side blank and one side marked with “X”, or a deck of cards)
- 1 small marking item (small red circle of paper would work fine) must be smaller and invisible if placed under a card
- 2 or more players

INSTRUCTIONS
- Create anywhere from 16 to 100 cards with two distinct sides.
- Arrange the cards in a grid on the floor or table. 16 cards will make a 4x4 grid. Place each card randomly face up or face down.
- You will need at least two players. One player is the virus while the other players are the computer systems. All players will get a minute to memorize the grid.
- All players that are not the virus will close their eyes. The virus chooses one card to flip over, this is the error. The virus slides the small red circle of paper, or any other marker that will not show, under the card when it has been flipped.
- The virus asks all the players to open their eyes. The computer systems will then start using only their eyes to search for the error. When a player thinks they have found it, they will silently put a finger on their nose.
- Once all the players think they have found the error, the virus will ask the player who had their finger on their nose first to point to the card they believe was changed and is the error. That player can then flip the card and check for the virus marker. If they are right, that player becomes the new virus and the game starts over. If they are wrong, the guess goes to the next player who thinks they found the error.
- You can add more cards to the grid to make the game harder!

DID YOU KNOW?
Computers rely on memory to be able store and retrieve information. Their memory can be long-term, or temporary, making computer memory much better than humans. On average, humans can only remember 7 numbers in a sequence at a time whereas computers are practically unlimited.