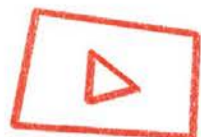




MEMORY

Computers can remember so many things - books, songs, videos - and millions of them!



How do they do it?



They use different kinds of memory

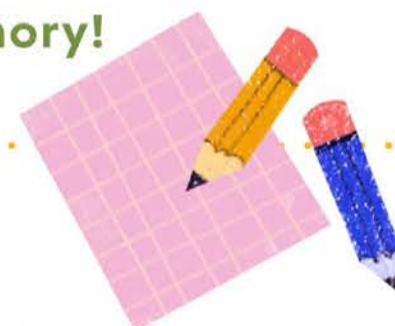
Memory (RAM) - fast but will forget everything once the computer is turned off

Hard Drive/Storage - slower but will remember everything even if you turn the computer off/on



The processor puts data in memory. **But it may forget where it put it!** In order to deal with it, the processor thinks of computer memory as if it was a city. We use house addresses to remember where people live. Computer uses numbers as addresses. In order to find things fast, all numbers representing addresses are ordered, so it's fast to find.

Now it's your turn to be a processor that uses memory!



1. Cut 10 cards from the next sheet. They will represent memory.

2. On one side of each card write a number representing its address (1000, 2000, etc). On the other side of each card write names of animals.

3. Then order the cards by their addresses facing up.

4. One person acts as "User" and one as "Processor". User asks Processor to find a card with specific address (e.g. find 2000 and say what it contains). The processor needs to do it as fast as possible.

5. How long would it take to find 5 different cards? Use a timer and see how fast you can do it.



Address	Data
1000	Ara
2000	Deedee
3000	Hello World!

My Memory Address Is: ★

My Memory Address Is: ★

My Memory Address Is: ★

My Memory Address Is: ★

My Memory Address Is: ★

My Memory Address Is: ★

My Memory Address Is: ★

My Memory Address Is: ★

My Memory Address Is: ★

My Memory Address Is: ★