

Instructions: Markovs Chain Cup Game (Morning Activity)

Resources:

- Per room:
 - a. 1x [word sheet](#) ■ [cups_game_words.pdf](#)
 - b. 27 cups (1 for each grey word)
 - c. [The start of day slide deck](#)
- For you:
 - a. Scissors
 - b. Stickytape or glue for labelling cups
 - c. A box to store everything in

Cup prep (required for each room):

- Print 1x word sheet per room
- Cut up the words (keep them grouped with their grey headings)
- Put the grey word ON the cup, put the words underneath it IN the cup

AM cup 1		
SAM	THAT	

AND cup 2		
HAM	HAM	HAM
HAM	HAM	

- Stack the 27 cups with the words in them, ready to go for 1x room

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How to play the game

Each classroom should be equipped with one set of the Markov Chains Cups Game.

Hand out 1 cup per girl. If you have extras, get the tutors (or some girls) to hold 2 cups.

Provide a quick explanation:

- Use start of day [slides](#) to introduce the cup game
 - The game leader will shout out a starting word (tutor)
 - If you hear your word, randomly select a piece of paper and read it out. Then put it back in the cup
 - This process repeats, forming a wonderful weird sentence chain (markovs chain) that loops around the room
 - Keep going until you hear “fox” - the final word (or the room is done/bored)

Let's play the cups game!

Read the outside of your cup!

If you hear someone shout the word on the outside of your cup:

1. Pick a piece of paper from inside your cup
2. Shout out the word on the piece of paper



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Once the game is done


- Show the shakespeare chain example In the slides. Explain this is what we will learn to build. With a bit of clever logic

Today we'll be making Markov Chains!



Markov chains are exactly what we just did with the cups!
We'll make the computer do it too to make some crazy stories!!

Here's one we made from some Shakespeare!

doth stay! All days when I compare thee to unseeing
eyes be blessed made By chance, or eyes can see, For
all the top of happy show thee in dark directed. Then
thou, whose shadow shadows doth stay! All days when I
compare thee in your self in inward worth nor outward
fair, Can make bright, How would thy shade Through
heavy sleep on the eye of life repair, Which this,
Time's pencil, or my pupil pen, Neither in the living
day, When in eternal lines of that fair from fair thou
grow'st, So should the lines to a summer's day?



Imagine if you used one of these to do your homework!!

Girls' Programming Network  

Link it back to coding (for the Intermediate & Advanced Rooms):

- Think of the collection of cups like the dictionary in the code we create for the project
- The grey heading ON the cup the “key” in the dictionary
- The words IN the cup are the corresponding items, randomly selected from the dictionary list