

# Independent Activity – 14 (Memory Game)

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# Create a 'Memory' game

Activity	Examples
<p>Create a version of the 'Memory' game.</p> <p>Use concepts of lists to store something.</p> <p>Then ask the user some questions/inputs to see how well can the user remember what had happened earlier.</p> <p>Be creative, use your imagination, but also focus on using lists creatively.</p>	<p><a href="https://scratch.mit.edu/projects/418143866">https://scratch.mit.edu/projects/418143866</a> <a href="https://scratch.mit.edu/projects/420124857">https://scratch.mit.edu/projects/420124857</a> <a href="https://scratch.mit.edu/projects/420611823">https://scratch.mit.edu/projects/420611823</a> <a href="https://scratch.mit.edu/projects/419842284">https://scratch.mit.edu/projects/419842284</a></p> <p><a href="https://scratch.mit.edu/projects/22329985/editor/">https://scratch.mit.edu/projects/22329985/editor/</a> <a href="https://scratch.mit.edu/projects/30589418/editor/">https://scratch.mit.edu/projects/30589418/editor/</a> <a href="https://scratch.mit.edu/projects/1617268/editor/">https://scratch.mit.edu/projects/1617268/editor/</a> <a href="https://scratch.mit.edu/projects/245749509/editor/">https://scratch.mit.edu/projects/245749509/editor/</a></p>
	<p><b>Class Project:</b> <a href="https://scratch.mit.edu/projects/416672285/">https://scratch.mit.edu/projects/416672285/</a></p>

**Please see SLIDE number 4 for a step-by-step guidance on how you should approach this activity. Be systematic. Be creative. Enjoy the process.**

# Marking Criterion (Max Marks: 12)

Task	Marks Given
Multiple costumes created for the background sprite	2
A background created using cloning/otherwise	2
Lists to store the location and names of the background sprites' costumes	2
List to store the places that the HERO sprite visited	2
At least three different <u>types</u> of questions that test how well the user remembers the sequence of events (use different list functions)	2
Bonus: Variations of this game where the user is expected to remember an entire sequence , sprites are placed in a 2-D grid, or the complexity of the game keeps increasing as the game progresses, randomness in placement etc	2
PENALTY: Late Submission (Per Day)	-1
PENALTY: Project not shared on scratch	-1

# Step by Step Approach

## Step 0

Revise the key concepts :  
List operations  
(add/delete/item/  
item#), broadcast, cloning



## Step 1

Pick a HERO sprite  
Pick a background Sprite  
Create multiple costumes  
for the background sprite



## Step 2

create the background.  
(Use cloning if needed)  
Place sprites in a  
row/column/  
diagonal/grid



## Step 3

Create and populate lists  
to store the names (e.g.  
costume numbers) and  
locations (x,y coordinates).



## Step 4

Make the HERO go to the  
background sprites.  
Populate a list of all the  
positions that the hero  
sprite visited.

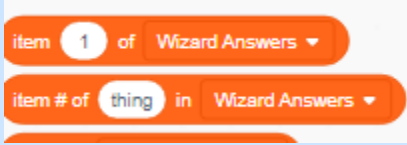


## Step 5

Ask questions from the list  
that hero sprite has  
created. Use different list  
functions to create  
challenging questions.

*Do not go to the next step unless the present step is clear.  
At every step, ask yourself, what can I do differently?*

# Common Problems

Problem	Remedy
<p>Confusion about these two blocks</p> 	<p>The top block returns the 'VALUE' of what the list has.</p> <p>The bottom block returns the 'INDEX' of the 'thing'.</p>

# Enjoy!

- \* Remember to submit your project in time!