

Memory



In the Memory quest, children will have to link words with a picture and picture of technology with a picture of its use. The images are related to programming and computers. In Memory children learn more about the world of technology and game programming, without using any real devices. It enhances their dexterity, reasoning and memory.

Printable resources attached: Memorycards
Scratch (extra: Memorycards Computer)

Additional material needed: None

Total duration: 30 min.

Territory 4 - The Fantastic Factory



Learning objectives



Reading



Being informed in the digital world, mobilising digital tools



Reasoning



Understanding natural systems and technical systems

Linked SDGs



Game modalities

6 - 12 years old

Work in group

In the classroom

At home

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Pedagogical interest and topics targeted

Learn about the digital world:

The digital world is the future. Children grow up in this world and it is important that they understand the different devices they can use. While using programs, games and websites, they can quickly expand their vocabulary and name what they see. They can also practice their techniques, mobility and communication while using these devices. Educational games, puzzle games, skill games and thinking games are very popular and can be very informative for children.

Narrate and testify with images:

Images can enhance children's development in different ways:

- Using images provides children with clarity and predictability, which contributes to their independence.
- Children's fantasy is stimulated. Children learn to think in images and in stories, and they can use this skill when they hear or read stories.
- Children's creativity is stimulated. Visualizing enables them to think in a solution-oriented way.
- Children relax when they see pictures. It is a moment of reflection that makes them aware of themselves, their thoughts and their emotions. Self-confidence is developed in that way.

Approach programming:

In the future, it is just as important to be able to program as to be able to speak a language, because our society becomes more automated and digitized. Programming teaches children to learn skills they can use when they are adults.

Skills, which children learn from programming are:

- Creative and logical thinking
- Spatial awareness
- Problem-solving ability
- Structuring
- Collaboration





Game rules

Game narrative

- Scratch memory: Let's learn to program without using a computer! In this game, children play memory based on the coding game 'Scratch'. 'Scratch' is a computer program that allows children to create digital stories, games and animations. To get to know the program, children have to link an image to a word. The images represent the blocks and buttons which are used in 'Scratch'. This card game provides initial guidance to children when they first start to code in this computer program.
- Extra: Computer memory: In this game, children play memory based on computer devices. They have to link an image (related to a computer) to its meaning. Some images will be very easy, others can be a little difficult. This card game will provide children with more information about the different devices related to computers.

Game rules:

- Four players ideally (it can also be played with a minimum of 2 players)
- Let children take turns
- Cards are placed on the table facing down
- Children try to make pairs (link an image to a word) by picking and returning cards at the same time
- The children have to look at the blackboard to check their right combinations
- If cards do not match they are put back to their original place facing down again
- When a right combination is found, memory cards are collected by the player and put aside
- When a right combination is found, the same player plays again
- The player, who has the largest number of cards at the end of the game, wins

Role of the teacher and game organisation:

- Explains the rules
- Shuffles the cards
- Puts the memory cards randomly, face down, on the table
- Keep in mind that everyone plays fair and recognizes the right combination of cards





Game rounds

Round 1

Children play the 'Scratch' memory quest in groups of four players. The teacher shuffles the memory cards and puts them randomly facing down the table.

Children take turns. They turn over 2 cards simultaneously to discover the right combination of a picture from 'Scratch' and its corresponding word. When the combination is incorrect, children put back the 2 cards in their original place, facing down the table. The aim is for the players to remember the place of the cards on the table. When a player finds a right combination, they keep the pair for their record and take another turn till the time they have a wrong answer. The game is over when all images are linked to the right word. The person who has the biggest number of card pairs wins the game.

Round 2

Children play an extra memory quest under the topic of 'Computers'. They play in groups of four players. The teacher shuffles the memory cards and puts them randomly facing down the table.

Children take turns. They turn over 2 cards simultaneously to discover the right combination of a picture from 'Computer' and its corresponding word. When the combination is incorrect, children put back the 2 cards in their original place, facing down the table. The aim is for the players to remember the place of the cards on the table. When a player finds a right combination, they keep the pair for their record and take another turn till the time they have a wrong answer. The game is over when all images are linked to the right word. The person who has the biggest number of card pairs wins the game.

Round 3

Children play the memory quest under the topic of 'Sustainable solutions'. They play in groups of four players. The teacher shuffles the memory cards and puts them randomly facing down the table.

Children take turns. They turn over 2 cards simultaneously to discover the right combination of a picture of technology and a picture of its use from 'Sustainable solutions'. When the combination is incorrect, children put back the 2 cards in their original place, facing down the table. The aim is for the players to remember the place of the cards on the table. When a player finds a right combination, they keep the pair for their record and take another turn till the time they have a wrong answer. The game is over when all images are coupled. The person who has the biggest number of card pairs wins the game.



Going further



Topic 1 - Get informed in the digital world

Discover some practical games for kids to learn about computers and devices:

- <https://tekkieuni.com/blog/computer-basics-for-kids/>
- <https://learnenglishkids.britishcouncil.org/category/topics/computers-and-technology>.



Topic 2 - Narrate and testify with images

Discuss the importance of using images in learning:

- <https://growingleaders.com/blog/why-is-teaching-with-images-so-effective-part-1/>
- <https://www.tes.com/magazine/archive/do-pictures-really-help-learning>



Topic 3 - Approach programming

- Scratch Jr (for young children from 5 to 7 years): <https://www.scratchjr.org/>
- Scratch (for children from 8 to 18 years): <https://scratch.mit.edu/>
- Code.org: <https://code.org/>
- Kodable: <https://www.kodable.com/>



Printables



Game on scratch

REPEAT

forever

WALK UP

change y by
10

START
WITH
SPACE

when space key pressed

SPEECH
BUBBLE

say
Hello!

Printables



Game on scratch

WALK TO
THE RIGHT

START WITH
GREEN FLAG

SOUND

WAIT

change x by
10

when green flag
clicked

start sound
Miauw ▾

Wait
1
seconds

Printables



Game on scratch

DELETE
SPRITE



SURPRISE



CHOOSE A
SPRITE



CHOOSE A
BACKGROUND



Printables



Game on scratch

CHOOSE A
SOUND



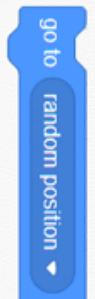
PAINT



FILL



RANDOM
POSITION



Printables



Game on computers

IPAD



LAPTOP



PRINTER



KEYBOARD



Printables



Game on computers

MOTHER-
BOARD



COMPUTER
MOUSE



HARD
DRIVE



SCREEN



Printables



Game on computers

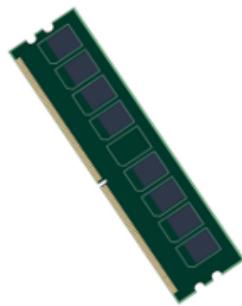
SOUND BOX



COMPUTER



INTERNAL
MEMORY



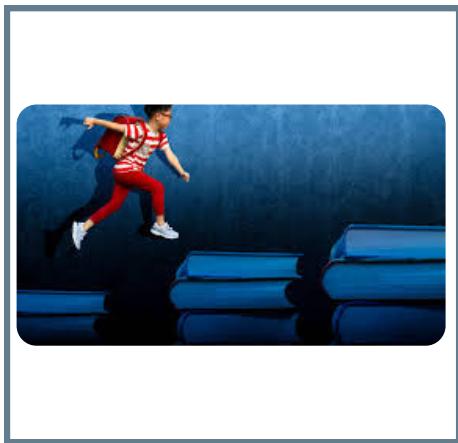
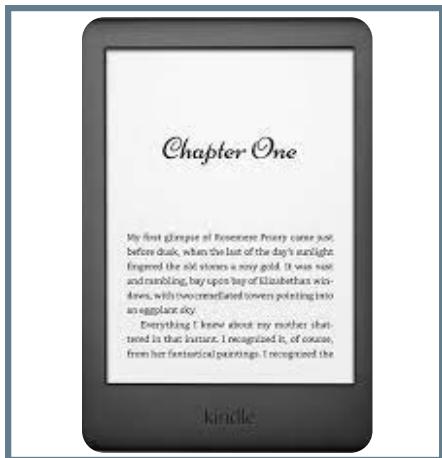
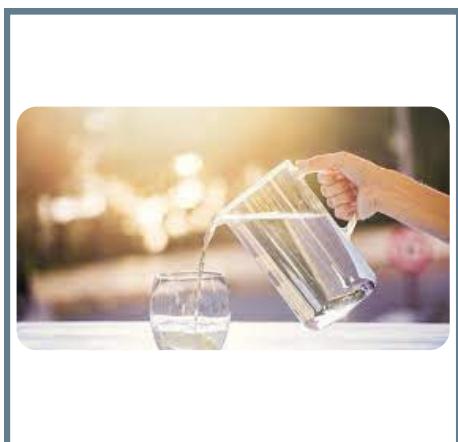
HEAD-
PHONES



Printables



Game on sustainable solutions



Printables



Game on sustainable solutions

