



STEAMory

Link to Resource	https://raiseprojecteu.files.wordpress.com/2020/01/steamory-detailed-workshop-plan.pdf
Target group	ages 8-14
Objective(s)	<ul style="list-style-type: none"> • Familiarize with professions related to Science, Technology, Engineering, Mathematics (STEM) • Learn and discuss about discoveries in the STEM field and the persons behind • Facilitate discussions about stereotypes in STEM professions • Integrate digital media into the learning process • Learn to collect and summarize information
Summary	<p>STEAMory is a memory card game where the tiles show role-models from different STEM professions.</p> <p>The goal of the game is to find role-model couples whose professions match.</p> <p>Example: Particle physicist</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="595 1061 906 1368" style="border: 1px solid green; padding: 5px;"> <p style="text-align: center; color: green;">Nuclear Physicist</p>  <p style="text-align: center;">Marie Curie 1867-1934</p> <p style="font-size: small;">Marie Curie was born in Poland. Together with her husband Pierre Currie she discovered the chemical elements radium and polonium which are both radioactive. She won two Nobel Prizes.</p> </div> <div data-bbox="952 1061 1264 1368" style="border: 1px solid green; padding: 5px;"> <p style="text-align: center; color: green;">Nuclear Physicist</p>  <p style="text-align: center;">Sau Lan Wu 1940-</p> <p style="font-size: small;">Sau Lan was born in Hong Kong and, as a young scientist, she challenged herself to be involved in at least 3 major scientific discoveries. Among others, she contributed to the detection of the Higgs boson, the particle that gives matter mass.</p> </div> </div> <p>Each tile comes with a brief description of the person, which is presented, highlighting his/her achievements.</p> <p>A set of tiles 14 role-model tile pairs is available with the resource pack while the STEAMory game can be further be extended. Pupils can easily create new tiles with STEM professional pairs of their choice.</p>

Materials	<ul style="list-style-type: none"> • Printables of the tiles - choose to print 6 slides per page to get reasonably sized tiles - https://raiseprojecteu.files.wordpress.com/2020/01/stememory_tiles_vf.pptx • Tile templates for game extension- https://raiseprojecteu.files.wordpress.com/2020/01/stememory_tiles_template_vf.pptx <p>Extra material:</p> <ul style="list-style-type: none"> • PC with PowerPoint installed • Printer • Thick white paper to print tiles • Scissors to cut out the tiles • For game extension: PC/tablet with internet access and/or printed or digital literature about STEM professionals.
Preparation	<ul style="list-style-type: none"> • Print the tiles on thick paper • Bring scissors to cut out the tiles with pupils • For game extension: PC or tablet(s) and/or literature if the game will be extended
Duration	<p>60 minutes for playing the game</p> <p>60 minutes for extension of the game</p>

Description

The goal of this game is to collect matching pairs of STEM professionals i.e. pairs of people with the same profession. The resources come with 14 ready-made pairs, teachers and pupils are encouraged to extend the game.

To start, the tiles are placed face down onto a table. The person with the smallest feet can start. He turns around two cards of his choice and makes sure everybody around the table sees the frontside of the tile. If the pair matches, the player keeps the pair and presents the others the two persons. After he can play again. If the two tiles don't match, the next person can play. The game is over when no more tiles are on the tables i.e. when all pairs were uncovered. The person with most pairs at hand wins the game.

One possible scenario of how you can play the game is the following: The teacher/educator/science communicator introduces the activity and explains the basic rules. She/he makes groups of 3-4 people and each group receives a stack of printed STEAMory tiles. The groups play the game according to the rules where students present and discuss the respective STEM professionals when finding matching pairs. At the end, all students gather and the teacher/educator/science communicator/... facilitates a discussion about stereotypes in STEM disciplines. Ideally, he/she includes a before/after activity to test if the activity had an impact on pupils related to STEM stereotypes. Such an activity could for example be drawing a scientist before doing the activity and one after doing the activity to see if the perception has changed.