

Tiles

Materials

The template for the tiles can simply be printed on paper, cut, and then glued on cardboard, or laminated. Alternatively, the tiles can also be 3D-printed, made from PVC, or laser cut, for a better finishing and a better manipulation.

Material needed: paper, scissors, cardboard, glue / laminating machine / 3D printer / laser cutter.

Suggested dimension of one tile: 8.5 cm length x 8.5 cm height

Brief description

Use the tiles to **form a continuous path** that goes from the starting point to the finish point. There are 3 sets of 4 different tiles. You can rotate the tiles 90° in any direction you want.

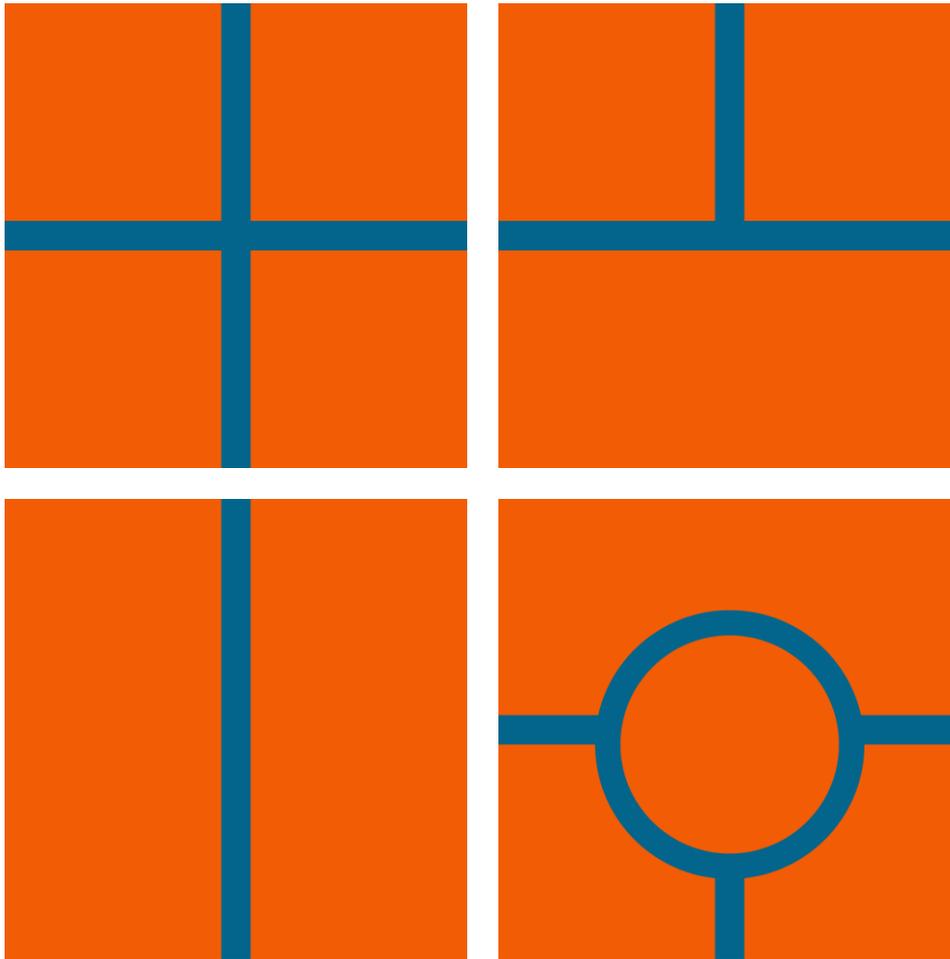
Can you form with the 12 tiles a continuous path that goes from start to finish? What is the smallest amount of tiles you need to form a path from start to finish?

Assembly

Design of all the pieces

This exhibit contains 3 sets of 4 tiles with different patterns.

Colours: the suggested template is created in two colours – the background of the tile is orange (#F25C05), while the pattern is dark blue (#03658C).



Assembly

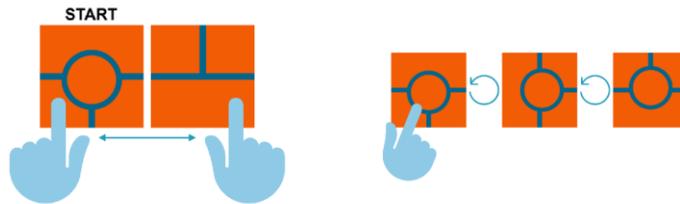
- Print the board and the tiles on A3 paper. Then, cut the tiles and glue them on cardboard (or laminate them). You can also use the tiles simply printed on the paper, or for a longer lasting version, they can be created in more durable materials.
- The drawing on the tile can have an embossed or hollowed edge made with a cutter so as to make the exhibit adapted for people with visual impairment.

The Board (DINA3)

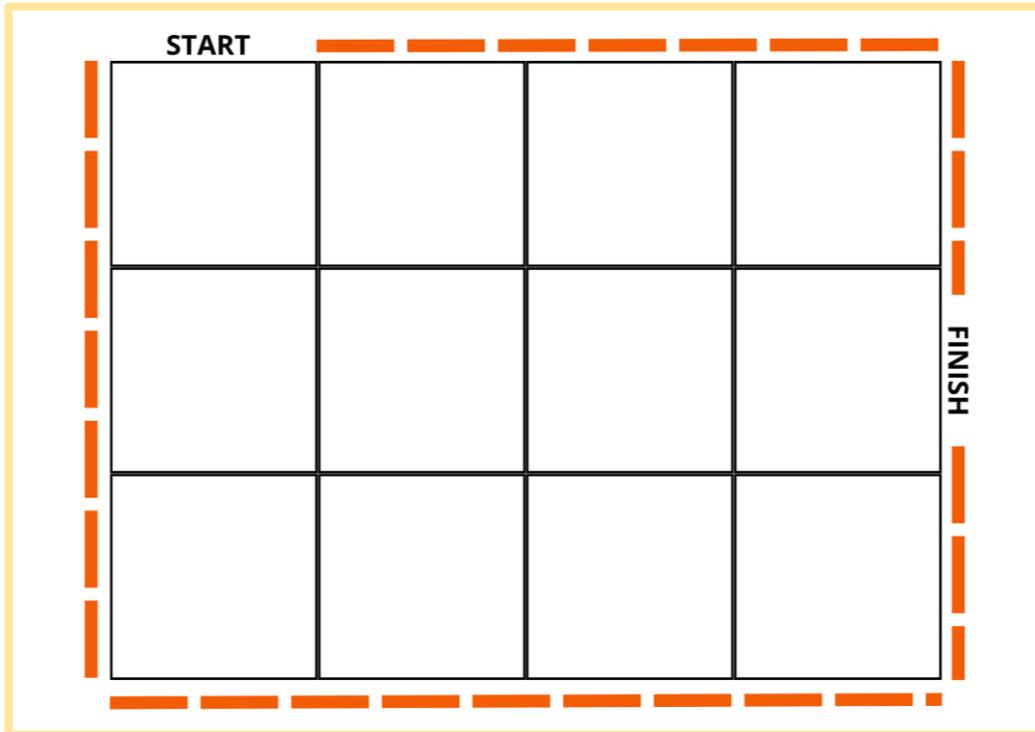


Exhibit 5: Tiles

Use the tiles to **form a continuous path** that goes from the starting point to the finish point. There are 3 sets of 4 different tiles. You can rotate the tiles 90° in any direction you want.



Can you form with the 12 tiles a continuous path that goes from start to finish? What is the smallest amount of tiles you need to form a path from start to finish?



Other Options

In order to make this exhibit inclusive for learners with SLDs, we suggest using the coloured print. Additionally, make sure that the tiles are in the suggested size 8.5 x 8.5 cm.

Explanation

This exhibit shows how geometry can be combined with patterns, using symmetry. The patterns in the tiles can always connect in order to create different paths. Thus, there are many possible answers.

It is also interesting to ask the learners if they can create a path that goes from the starting point (upper left corner) to the finish point (middle right corner) using all of the tiles. Normally, they only need 11 tiles to do so. One tile will be useless.

Another possibility is to ask them what is the smallest amount of tiles they can use to form a path that goes from the starting point to the finish point. The answer is 5.

Competencies

- Geometry
- Symmetry
- Creativity
- Problem-solving

For 3d Printers (If applicable)

The tiles can be constructed using 3D software and printer.