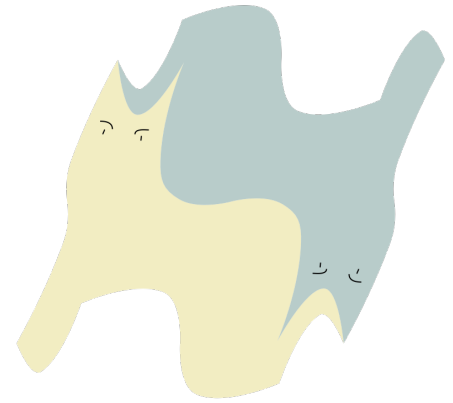


SCRATCH Tessellation

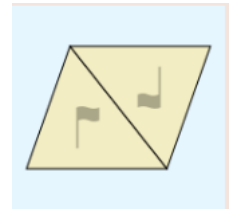


This week we will use: <https://tiled.art>

Tessellations are tiles you can put together like a jigsaw puzzle, but every piece is the same!

1) Click **Create**

2) The tiles can be flipped over and rotated – these are its *symmetries*. Click the 2-way Triangles rotated symmetry.



3) Draw some kind of animal.

- *You can bend the triangular outline by clicking on an edge to add a control point and then dragging it.*
- *Switch between curved and sharp corners by selecting these from the menu:*
- *You can add **eyes** to your animal by switching from editing the tile shape to editing tile detail (select the pen to draw).*



4) When your tile is finished you can save your work with the Save button:



5) To save your work in a Scratch-ready format, click on the second button down (a folder)...



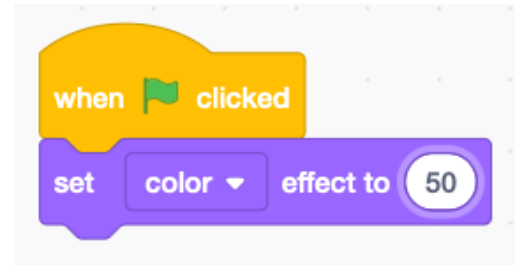
6) Select “Export PNG image”, and choose “Key tile only” in the **content** menu.

7) Click “Export”, choose a Title, then “Export” again.

Register/login at <https://scratch.mit.edu>

8) Create a new sprite with the PNG you just saved.

9) Add code to change the colour of the sprite. The colour effect shifts the colour and can be any number between 0 and 199.



The tile is like a jigsaw piece.

10) Duplicate the sprite and turn it upside down by changing Direction from 90 to -90.

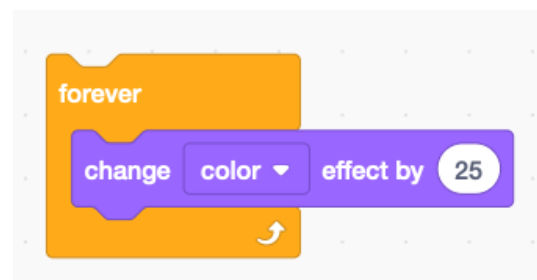
11) Make this new tile a different colour by changing the colour effect to a different number.

Drag the tiles around and fit them together like a jigsaw puzzle.



12) Make the tiles change colours by adding a loop to change the colour effect:

13) Duplicate both tiles a few times and fit them together like a puzzle.



Save your code with a good name.

File > Save now