



Encontro Regional eTwinning

Braga
19 e 20 de setembro 2014

Teresa Xavier & Fátima Moreira
(Agrupamento de Escolas Vale do Tamel e Agrupamento de Escolas de Moure e Ribeira do Neiva)

- Projeto “Aprender e Inovar com TIC” - 2011



- Uma das atividades era o desenvolvimento de um projeto eTwinning;
- Sessão na Escola Básica de Ribeira do Neiva com Teresa Lacerda, Embaixadora eTwinning do Norte;
- Surgiu o projeto “Game in math”...

The screenshot shows a web-based application interface for eTwinning. At the top, there's a header with links for 'PÁGINA INICIAL', 'PERFIL', 'PROJECTOS', 'ENCONTRAR ETWINNERS', 'SALAS DE PROFESSORES', 'RECURSOS', and 'HELPDESK'. A red arrow points from the text in the list above down to the 'Notícias de(a)o Portugal' section. This section contains a news item with the following text:

Ação: O eTwinning e as ferramentas da Web 2.0 - Norte
24.10.2011 - Ação: O eTwinning e as ferramentas da Web 2.0
Dinamizadora: Teresa Lacerda, Embaixadora eTwinning do Norte
Data e hora: 26 de Outubro de 2011, 4º feira, das 15h00 às 16h30
Local: Escola Básica de Ribeira do Neiva, Lugar do Portinho - Azédes,

Below this, there's a 'Perguntas Frequentes' section with a question about finding partners for projects, followed by a poll asking if it's difficult to find partners, with 'Sim' and 'não' options and an 'ENVIAR' button.

PRIMEIRO PROJETO

Game in math

- 4 parceiros: Portugal, Turquia, Itália e Reino Unido.

The screenshot shows the homepage of a TwinSpace project titled "Game in Math". The header features the TwinSpace logo with interlocking gears and the text "TwinSpace". A welcome message "Welcome Teresa Xavier!" is displayed next to a user icon. The navigation menu includes links for HOME, PROJECT ACTIVITIES, STAFF ROOM, PUPILS CORNER, CHAT, and GUIDELINES. Below the menu, a section titled "Game in Math" is shown with a public link: <http://new-twinspace.etwinning.net/web/p69098>. To the right, the eTwinning logo is visible. A large, semi-transparent callout box labeled "Activities" lists several project components:

- ACT 1 - Countries and Schools Team
- ACT 2 - Games in math
- ACT 3 - Students play math games
- Extra activities
- News

O PDW “Use of eTwinning and other collaboration tools for sharing STEM learning resources and scenarios”

permitiu-me ...

- Contactar presencialmente com professores europeus e não apenas através do site eTwinning;
- Partilhar experiências e ferramentas da web 2.0 utilizadas no desenvolvimento de projetos eTwinning;
- Iniciar a planificação de um projeto a ser desenvolvido por professores de matemática de Portugal, França e Lituânia;
- Angariar contactos para o meu quadro de bordo no site eTwinning;
- Conhecer um pouco da cultura da Lituânia;
- Pôr em prática a língua inglesa;
- Conhecer outros projetos integrados no European Schoolnet nomeadamente o projeto inGenious.



SURGE ENTÃO O PROJETO :

... Geometric shapes on monuments

The screenshot shows a sidebar titled 'Activities' with the following options:

- ACT 1 - Introduce yourself
- ACT 2 - Monuments
- ACT 3 - Five (5) Monuments most popular. Areas and volumes on monuments
- ACT 4 - Final product (prezi) others: (file kmz/poster/book markers)
- ACT 5 - International day of monuments (18th April)
- Extra Activities
- News

- 1º passo: 5 parceiros (fóruns do site eTwinning)
- 2º passo: apresentação da proposta de planificação do projeto aos alunos e parceiros, tendo em conta o calendário escolar de cada país <http://goo.gl/Oh1FRs> ;
- 3º passo: pedido de autorização aos EE;
- 4º passo: Organização do TwinSpace;
- 5º passo: Comunicação pelo email do TwinSpace.

The screenshot shows the 'TwinSpace' interface with the following elements:

- Top navigation bar: eTwinning Desktop, Visit the eTwinning portal, Welcome Teresa Xavier!
- Header: TwinSpace
- Navigation menu: HOME, PROJECT ACTIVITIES, BLOG, TEACHERS, PUPILS, CHAT, GUIDELINES
- Project title: GEOMETRIC SHAPES IN MONUMENTS
- Project description: Public link to this TwinSpace: <http://new-tinspace.etwinning.net/web/p87316>
- eTwinning logo

Portugal



Cathedral of Braga

França



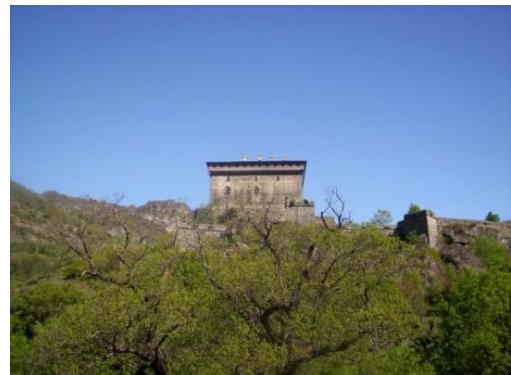
Grosse Cloche

Lituânia



Kaunas Castle

Itália



Verres Castle

Turquia



Blue Mosque

HOME PROJECT ACTIVITIES | BLOG | TEACHERS | PUPILS | CHAT | GUIDELINES

Compose back

Mailbox

inbox Sent Drafts

INBOX

From	Date	Subject
Cristiana.RibeiradoNeiva 9E	4/12/13 2:20 PM	Kaunas Castle how many sides does the base of this pyramid (root)
Marcos 5E Ribeiro da Neiva	4/7/13 11:06 PM	Study of monuments
Lucas 5E Ribeiro da Neiva	4/5/13 4:06 PM	Do you want to be part of my international team?
Henrique 5E Ribeira da Neiva	3/1/13 3:56 PM	prezi on Act. 4
Beatriz Ribeiradoneiva.9E	2/1/13 3:51 PM	Geometric shapes on monuments_preszi
Donatella Camizzi	6/20/13 10:41 AM	conference on skype
Egle Pauleto	4/19/13 12:56 PM	Activities on monuments: Verres Castle
Arianna Accurso	4/16/13 5:47 PM	Team 1
Cristiana.RibeiradoNeiva 9E	4/5/13 8:28 PM	Grossa Cloche The cone (root) has how many meters in diameter
Virginija Levanauskaitė	4/12/13 2:27 PM	activities
Donatella Camizzi	4/4/13 2:41 PM	International teams



<http://photopeach.com/album/ysavlc?ref=est>

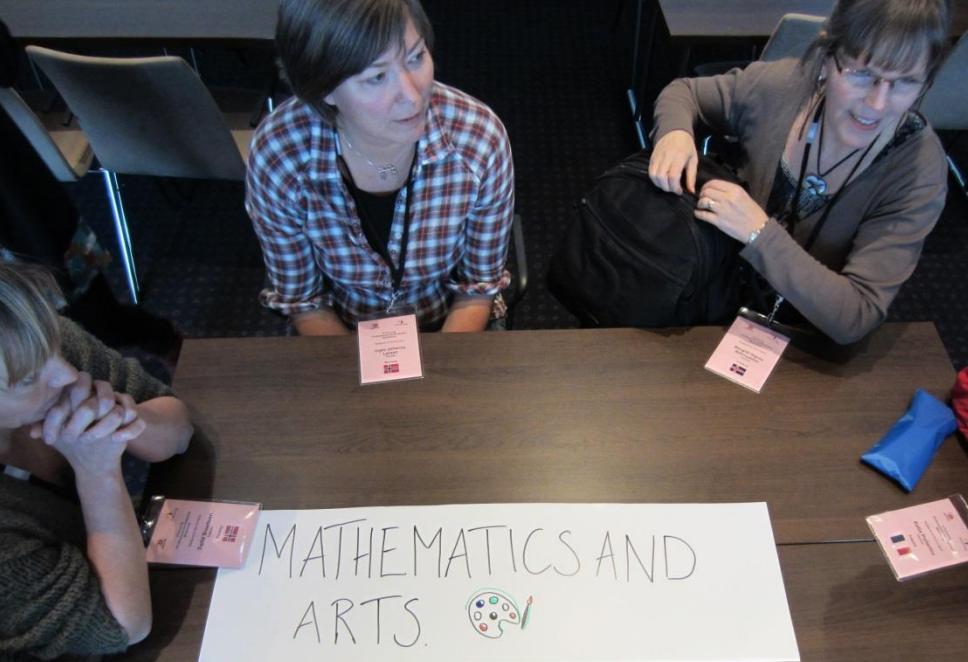
Conhecer o eTwinning permitiu:

- propôr atividades diferentes aos **alunos** com o objetivo de os motivar para a matemática, de tomarem consciência da importância da língua inglesa e de conhecerem colegas e culturas de outros países;
- enquanto **professora**, conhecer novos colegas europeus, a cultura dos seus países e diferentes estratégias de ensino, bem como participar em formação através de eventos de aprendizagem disponibilizados no desktop eTwinning;
- dar a conhecer a **escola** onde trabalhava bem como as atividades desenvolvidas.

Obrigada pela
atenção!

- » 2013/2014
 - » Oficina de Desenvolvimento Profissional eTwinning:
“Mathematics, ITC and projet collaboration”
- País/Local: **Islândia/Reiquejavique**
- Data: **31/10/13 a 2/11/13**





[eTwinning Desktop](#) | [Visit the eTwinning portal](#)

Welcome! 

 **TwinSpace**

[HOME](#) | [BLOG](#) | [GUIDELINES](#)

TESSALATION IN EUROPE



[Login](#)

Activities

- [Project Partners](#)
- [France's Tessellation](#)
- [Norway's Tessellation](#)
- [Portugal's Tessellation](#)
- [Slovenia's Tessellation](#)
- [Education Material](#)
- [Photos](#)

In this project, pupil will connect Art and maths : each of them will make a figure out of square and use mathematical transformations to make a big picture as Escher's one (tessellation, tiling, pavement,...)

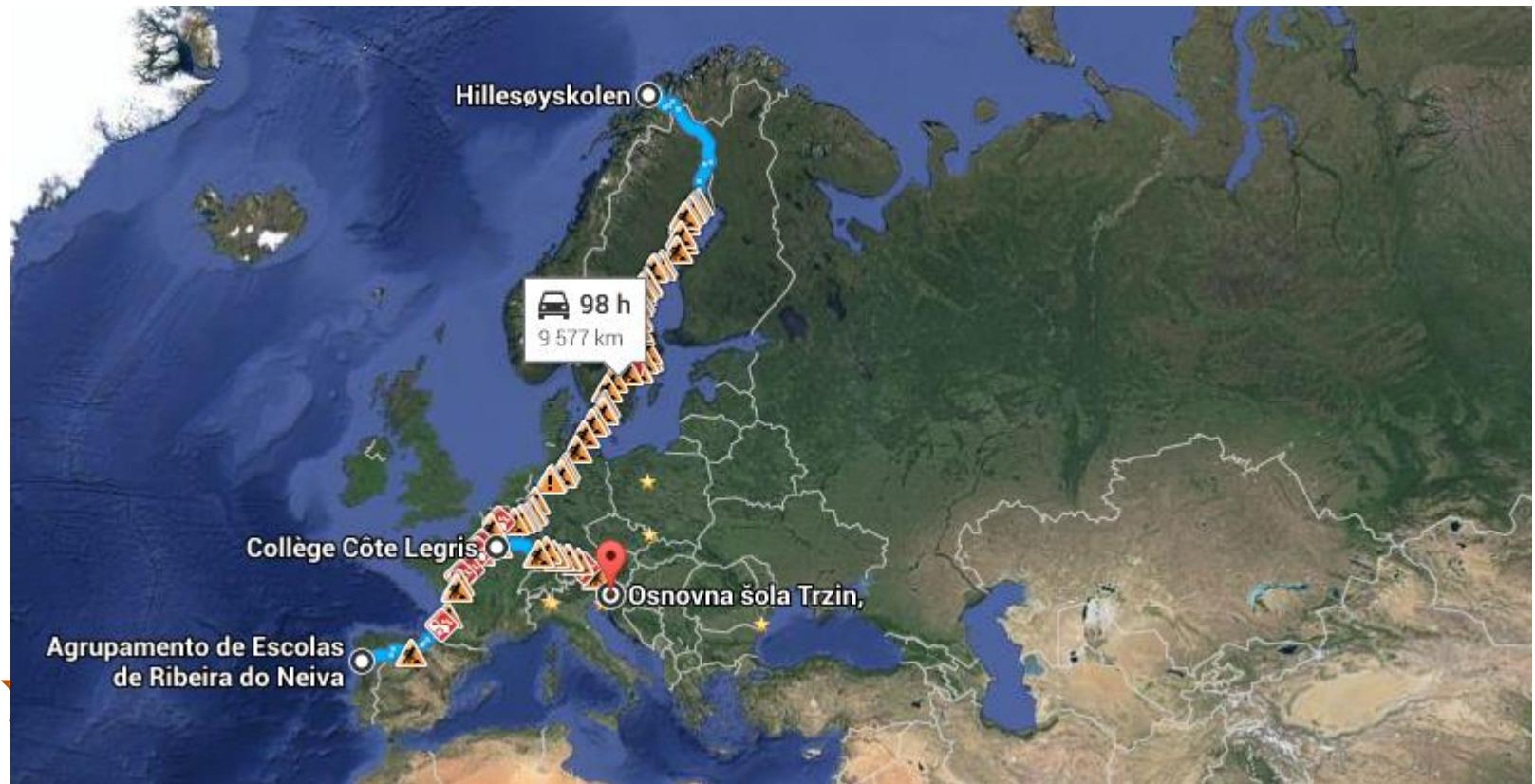
Tessellation in Europe
eTwinning project

- » http://www.youtube.com/watch?v=NYGIhZ_HWfg
- » Escher's flying horse - square

- » <http://www.youtube.com/watch?v=T6L6bEbTMo>
- » Reptiles - Escher Lizard - hexagon

Tessalation in Europe

Projeto

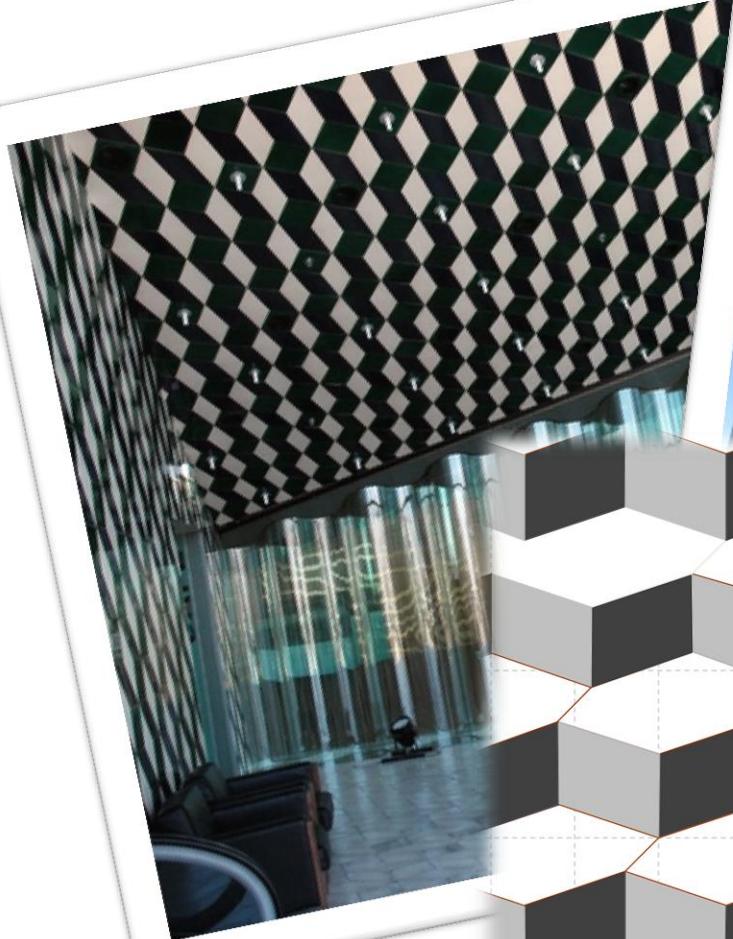


8ºF e Clube eTwinning
2013/2014

<http://newtwinspace.etwinning.net/web/p100027>



In Latin, *tessella* is a small cubical piece of [clay](#), [stone](#) or [glass](#) used to make [mosaics](#)



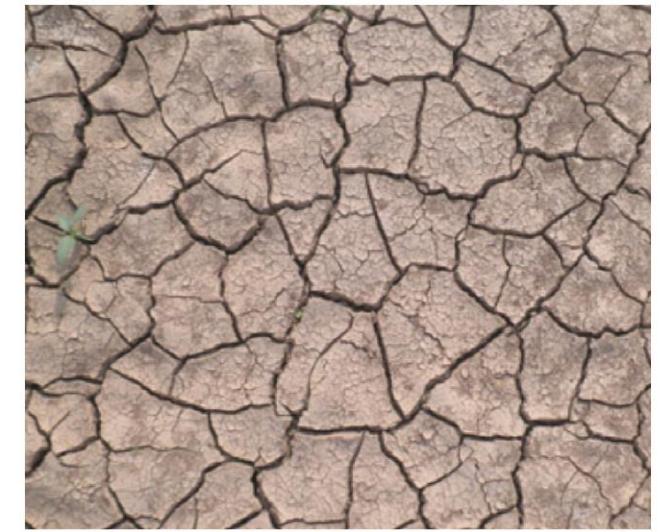
Pavimentação em edifícios

Casa da Música **Porto** e Casa de concertos Harpa **Reiquejavique**

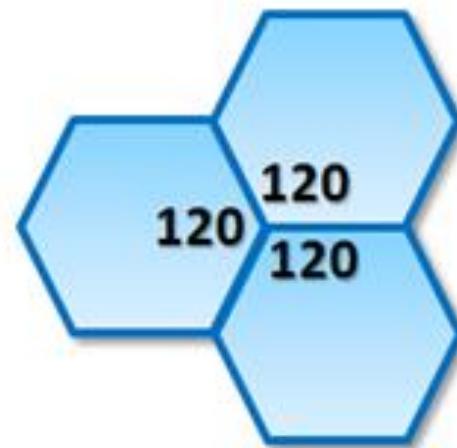
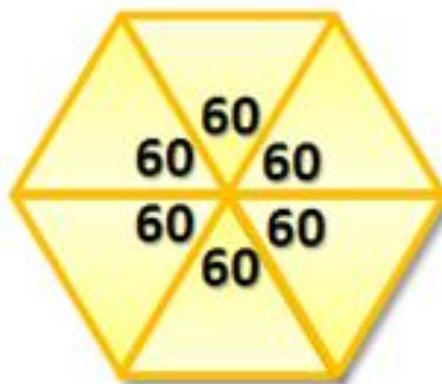
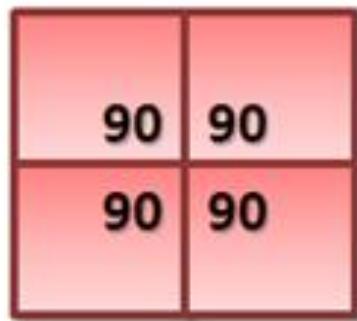
Pavimentação na Natureza



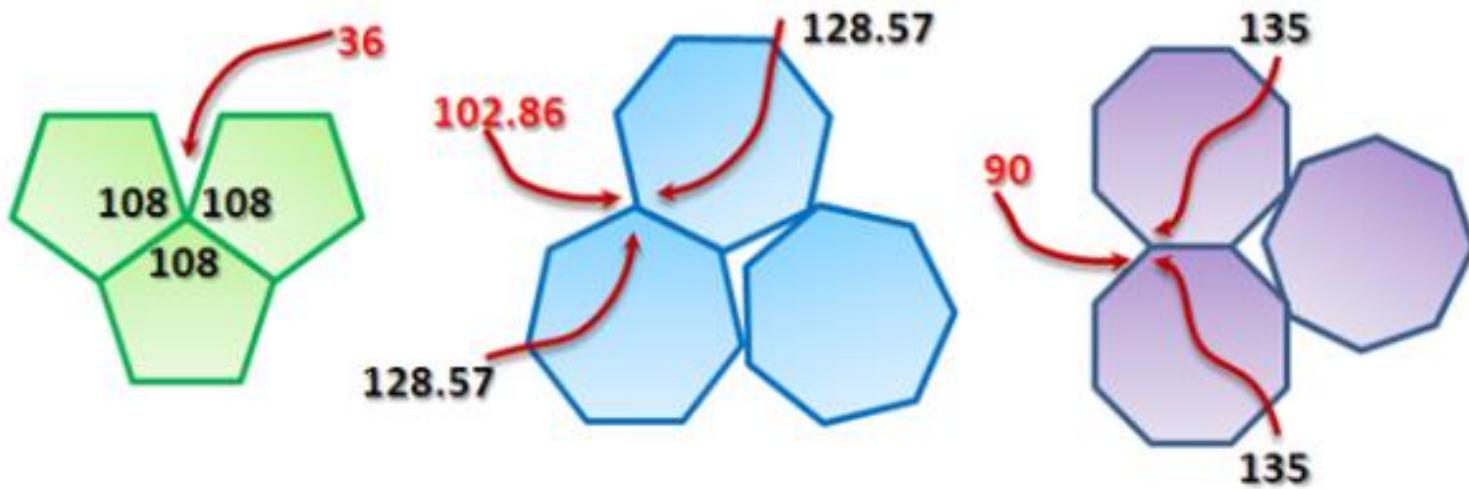
Isometrias para efetuar pavimentações...



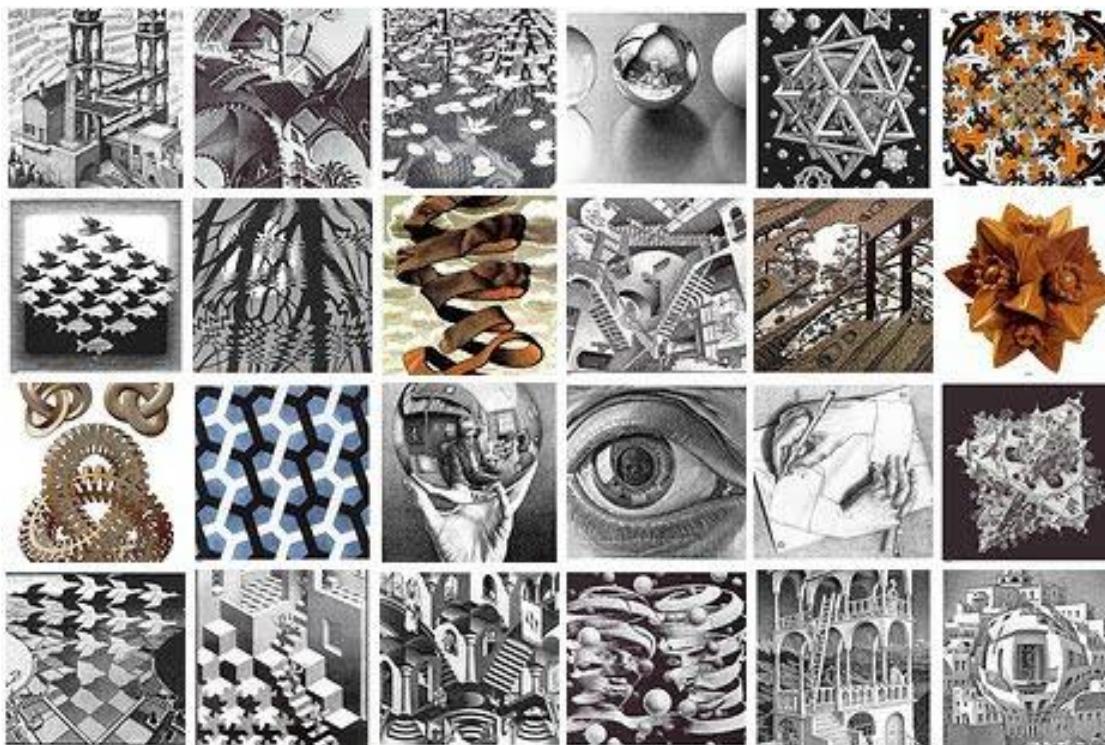
Estes polígonos conseguem pavimentar. Porquê?



Estes polígonos não conseguem pavimentar. Porquê?



Mauritis Cornelis Escher

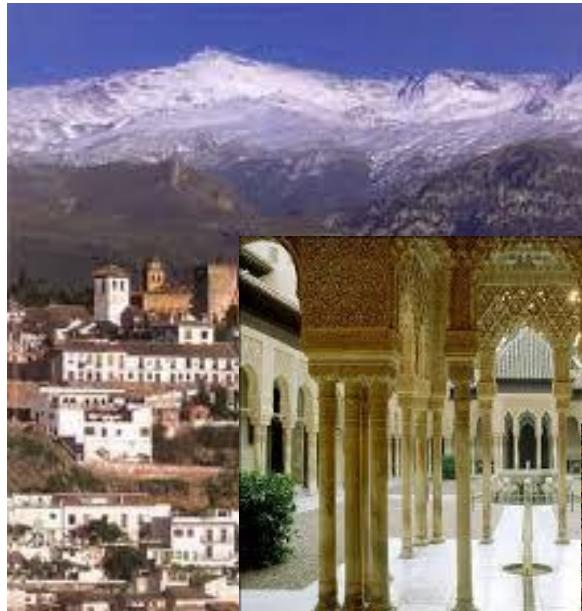


Vida e Obra de Escher

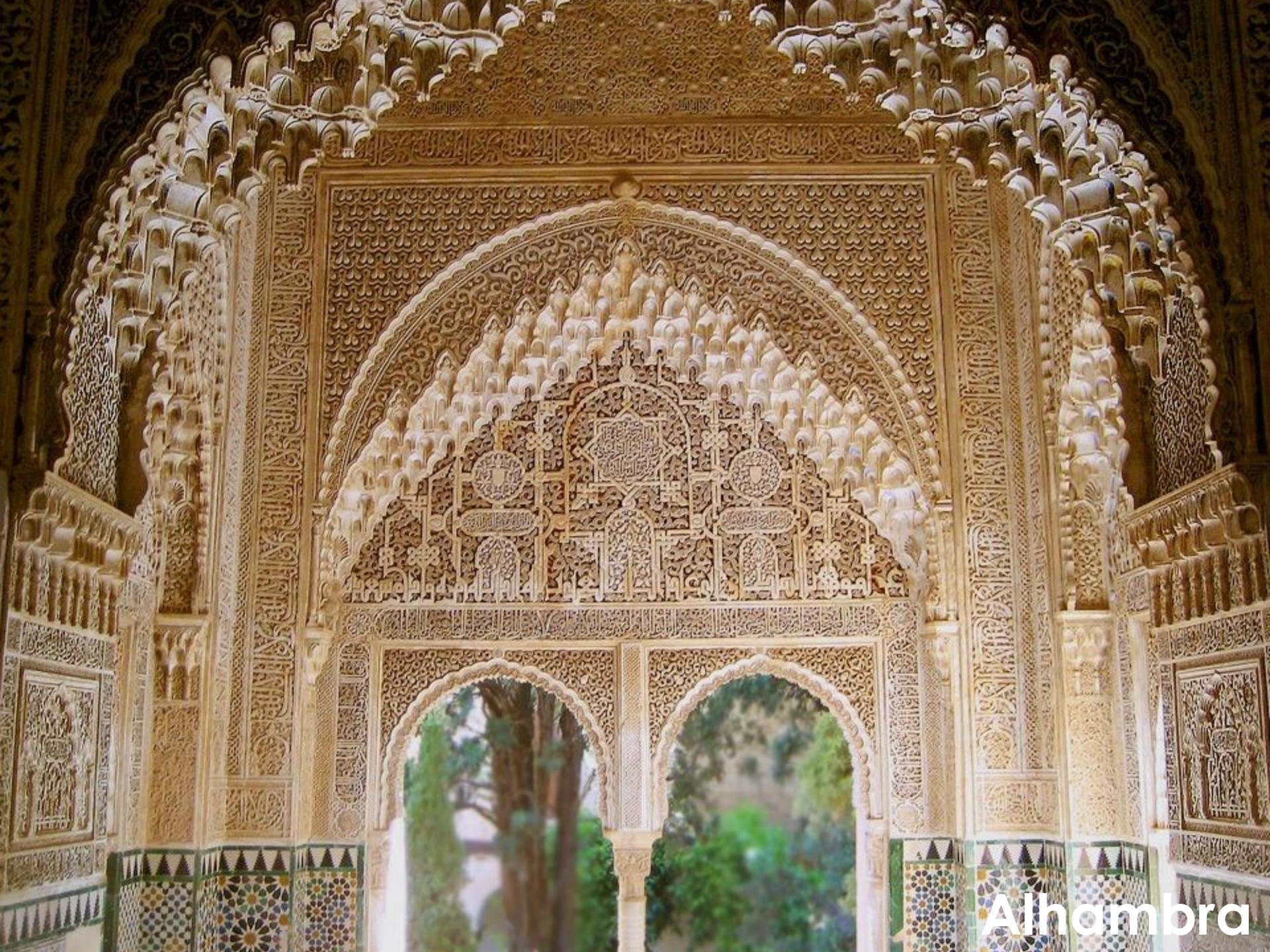


Mauritis Cornelis Escher nasceu em Leewarden na Holanda, a 17 de Junho de 1898, morreu em Março de 1972 e dedicou toda a sua vida às artes gráficas. Foi na Holanda que teve a sua formação artística, com maior destaque no período 1919-1922 onde estudou na “School for Architecture and Decorative Arts” em Harlem. Também viveu em Itália, Suíça e Bélgica e viajou por diversos países, nomeadamente França e Espanha.

- Uma das principais contribuições da obra deste artista está na sua capacidade de gerar imagens com efeitos de ilusões de ótica.
- Foi numa visita à Alhambra, na Espanha, que o artista conheceu e se encantou pelos mosaicos que havia nos palácios de construção árabe.
- Este foi o ponto de partida para os seus trabalhos mais famosos, que consistiam no preenchimento regular do plano, normalmente utilizando imagens geométricas e não figurativas.



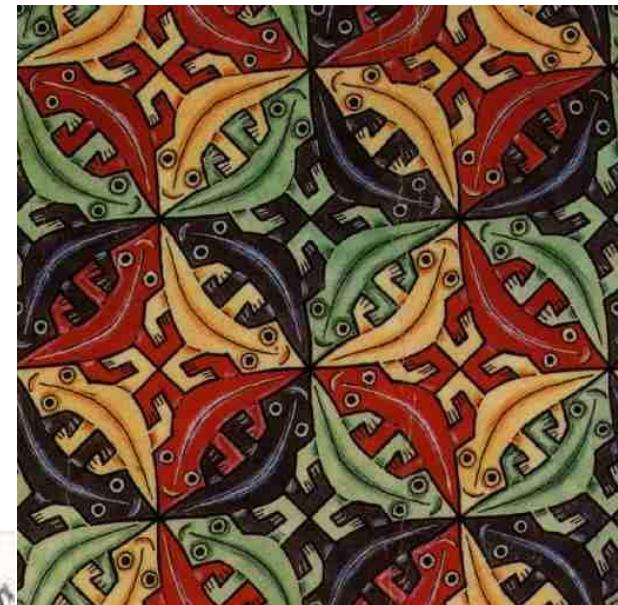
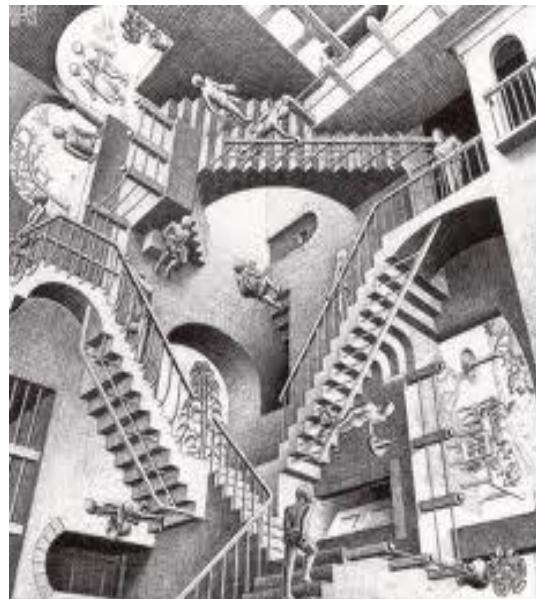
Espanha

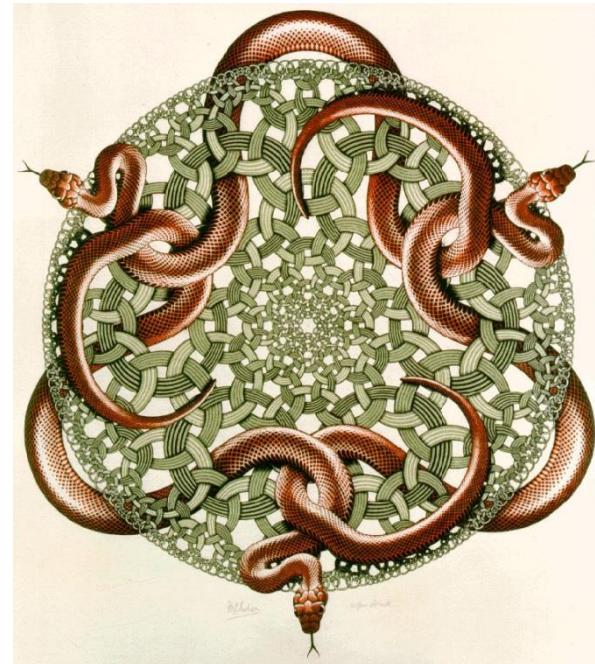
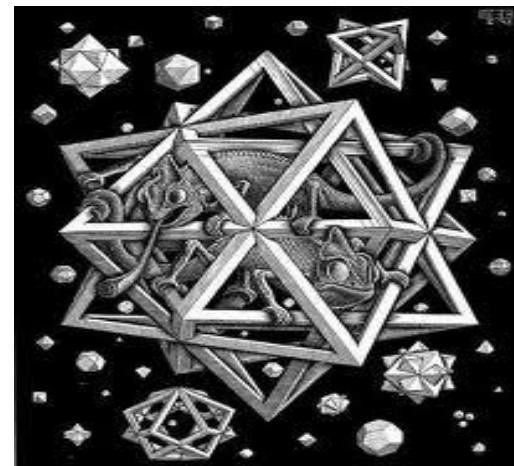
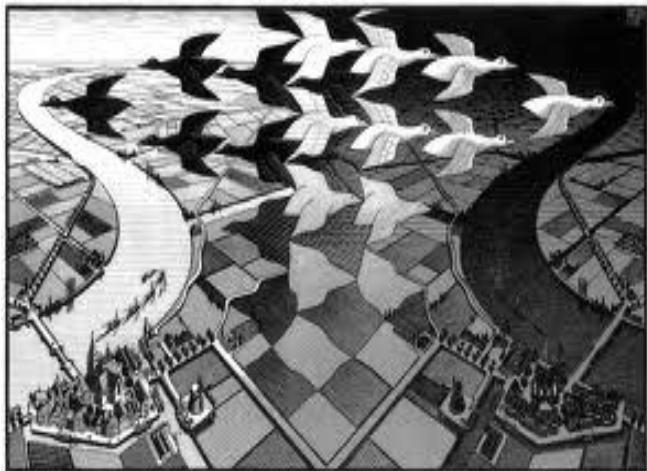


Alhambra

- A partir de polígonos, regulares ou não, Escher fazia mudanças, mas sem alterar a área do polígono original. Assim surgiam figuras de homens, peixes, aves, lagartos, todos envolvidos de tal forma que nenhum poderia mais se mexer.
- Com isto ele criava figuras impossíveis, representações distorcidas e paradoxais. Posteriormente foi considerado um grande matemático geométrico. Escher utilizou quatro tipos de transformações geométricas que são: translações, rotações, reflexões e reflexões deslizantes.

Algumas das suas obras





<http://paginaely.galeon.com/aficiones409994.html>

<http://www.educ.fc.ul.pt/docentes/opombo/seminario/escher/browser.html>

http://es.wikipedia.org/wiki/M._C._Escher

https://pt.wikipedia.org/wiki/Maurits_Cornelis_Escher

Raquel Ferreira nº14
Telma Araújo nº16

Telmo Mendes nº 18

Miguel Pereira nº8
Cláudio Araújo nº3

Tiago Moreira nº19
Duarte Faria nº5

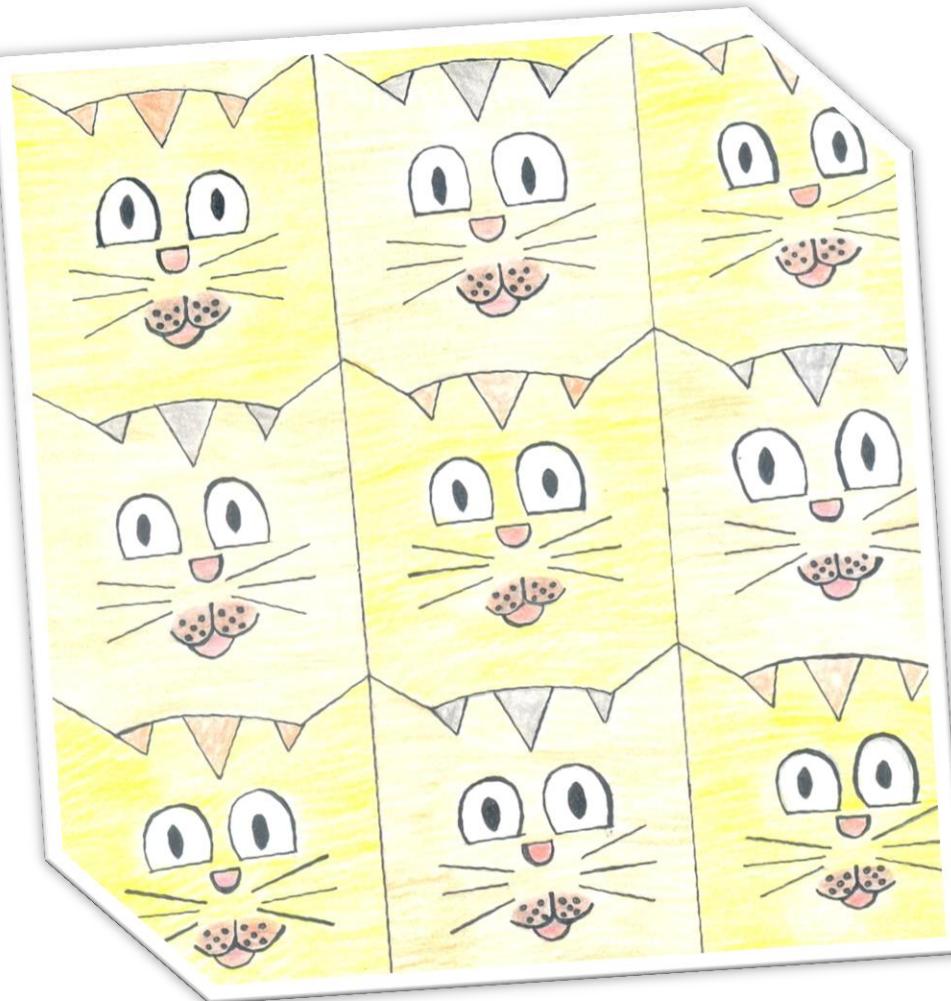
Thalisson nº 20

Diana Afonso nº4
Luís Queirós nº11

Escola Básica de Ribeira do Neiva
Ano Letivo 2013/2014

Portugal's Tessellation

Pavimentação de Portugal



Hello!

I'm a pet built from a square with 7.5×7.5 cm. The upper side of my head was gotten by taking off part of $1/8$ (this part was drawn with three circumference arches, two lateral that draws the ears and the middle that draws the top of the head) and making a translation of 7.5 cm down, that's how my jaw was made. The top of my head and the ears are the 1st and 4th part of the square of the arch on the top of the head (the extremes of this arch are of 1.5 cm of the opposite sides of the square and 1 cm of the upper side the square and the minimum distance of the arch relative to the top side of the square (it's equal to 0.5 cm) were drawn three pictures looking like triangles, the central with 1.3 cm of base and 1.4 cm of height and the two lateral parts have 0.6 base and 0.7 height. The eyes remember two semicircles of 1.4 diameters (but it has a bigger area). Besides that it has two full black eclipses and my eyes are half of the $2/4$ part of the square, the space between my eyes is nearly 0.7 cm and each one is 1.8 cm away from the opposite sides of the square. In the middle of the 3rd part, I have a little nose with the shape of a semicircle with 0.7 cm of diameter and lightly below this, 3 moustaches in each side. In the middle of the 4th part you can find my beautiful mouth. It was drawn with nearly 3 semicircle. One is my tongue and the other two my upper lip. Each one of the semicircles has five black dots, just like the symbol of the middle part of the Portuguese flag. I am countered with black, the pictures that look like triangles are painted grey, the nose and the mouth are painted red and my face is painted orange. I gave origin to a translation of 7.5 cm down and right. By making these translations my face became yellow and the triangles became orange. But don't worry, in the next translations I will get my initial colors and so on.

Interpretação francesa



Norway's Tessellation

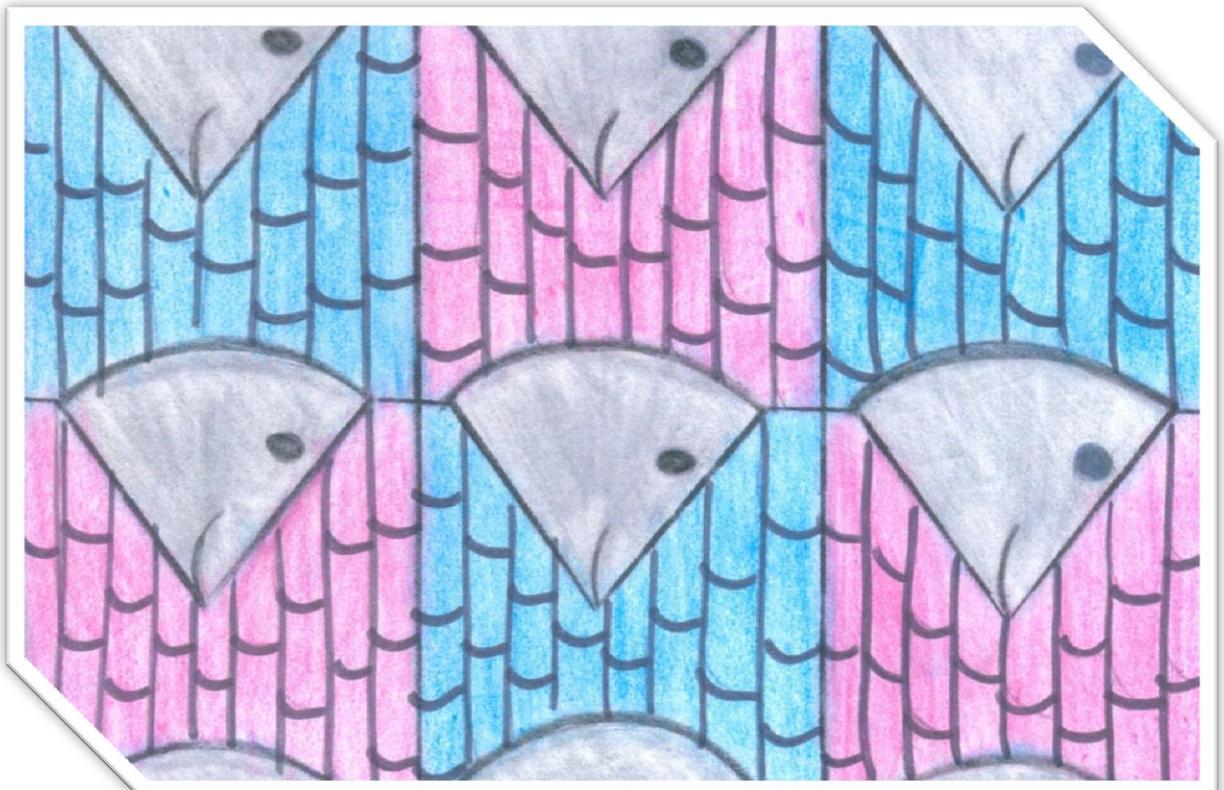
Pavimentação da Noruega

Take a square (6x6cm)

You must start 0,7 cm from the left side on the bottom line, put a mark there and 0,6 cm from the right side. Draw a triangle from these marks. The triangle must be 3 cm high.

Cut out the triangle and tape it on at the top - on the opposite line from the bottom line.

You can make the pieces in different colours, or you can draw and decorate inside them in a big Picture!



Interpretação portuguesa

Interpretação francesa



France's Tessellation

Pavimentação da França



Interpretação portuguesa

On a white sheet of paper:

- Draw a square ABCD with a side of 12 cm.
- Draw the diagonals of the square, they cross in O.
- Draw the bisectors of the square.
- Cut the square out.
- Name E the center of [AB], F the center of [BC], G the center of [DC] and H the center of [DA]
- On segment [DC], put the point I such as $DI = 2$ cm.
- On segment [DB], put the point J such as $DJ=2,8$ cm.
- Draw the triangle DJI and cut it out.
- Don't move the triangle. Keep it in the original position and slide it up along [AD] until D and A are mixed. If you put the triangle in the correct position, it is out of the square and its side [DI] is on the side [AB] of the square.
- Draw the symmetrical triangle of the triangle DJI using O as the center of the symmetry. Call this new triangle [KLB].
- Cut KLB out.
- Don't move the triangle and push it along [BC] until B (= the summit of the triangle) is mixed with C. (It is out of the square and its base is on segment [DC].)
- Scotch tape the two triangles on the square.
- Now, on segment [AH], place a point M so that $AM=2,3$ cm and, on the same segment, place a point N so that $AN = 3,8$ cm.
- Draw (on [BC]) the symmetrical points of M and N using O as the center of your symmetry. You call them P and Q.
- Take the attached piece of puzzle. Reproduce it : you have 2 identical pieces in hands.
- Make the base of one piece correspond with segment [MN]. The piece of puzzle is inside the square. Make the base of the other piece of puzzle correspond with segment [PQ]. It is inside the square too.

Slovenia`s Tessellation

Pavimentação da Eslovénia

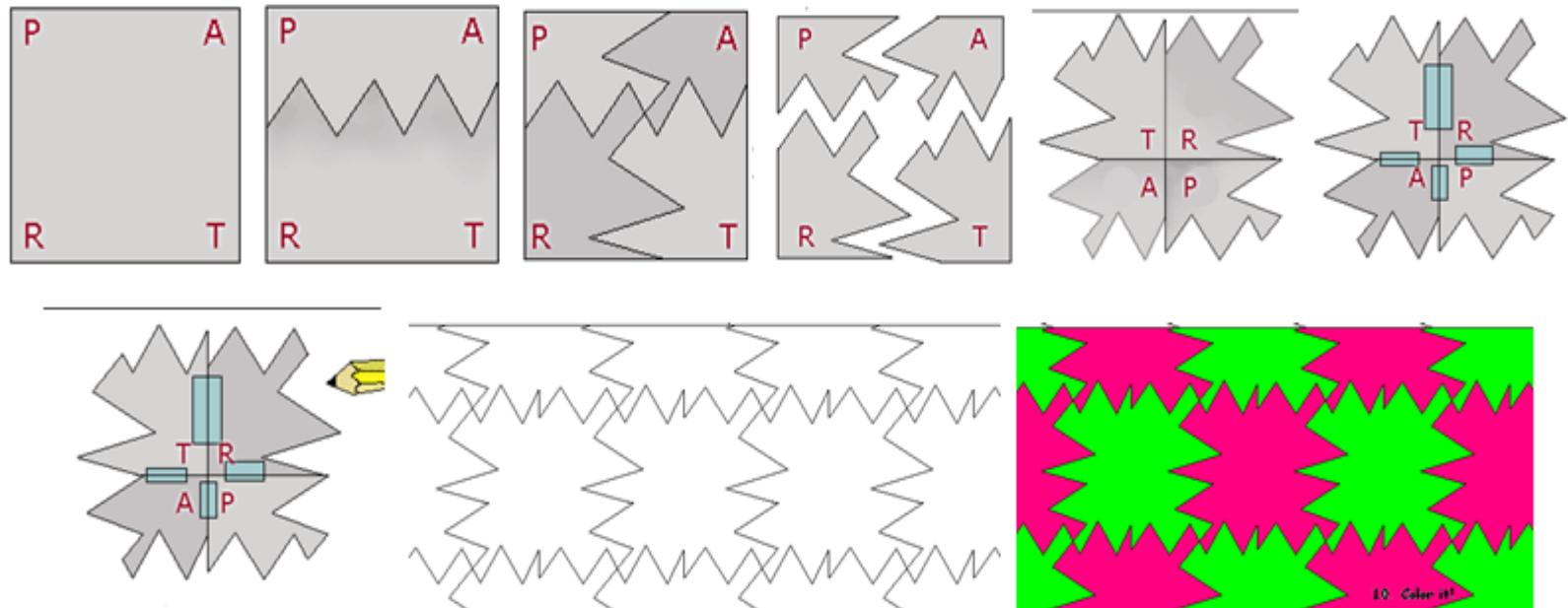
Draw a square ABCD 10 cm x 10 cm. Mark a midpoint on each side of the square. Let M be the midpoint of segment AB, N the midpoint of the segment BC, O the midpoint of the segment CD in P the midpoint of the segment DA.

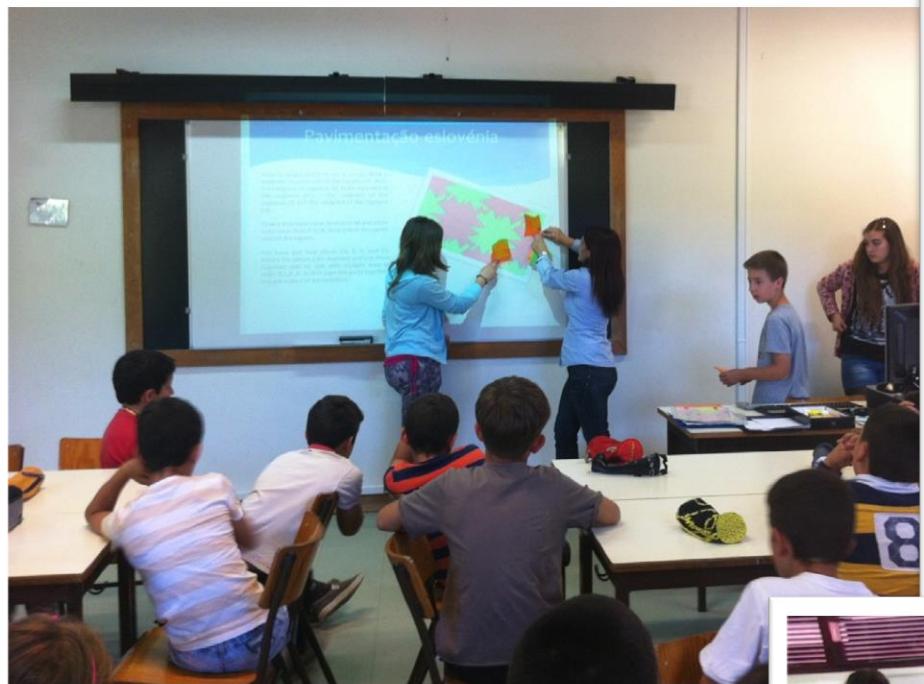
Draw a free hand curve from O to M and a free hand curve from P to N. Now follow the curves and cut the square .

You have got four pieces (A, B, C and D). Rotate the pieces (180 degrees) and put them together side by side with straight lines in order D,C,B ,A. Scotch tape the parts together. You got a piece of a tessellation.



Etapas para a pavimentação da Eslovénia





eTwinning
TWINNING IN PAPER



Mathematical Christmas Cards

Projeto



[http://new-
twinspace.etwinning.net/web/p101042](http://new-twinspace.etwinning.net/web/p101042)

3ºD, 3ºE e 3º/4ºF e Clube eTwinning
2013/2014

» 2014/2015

»O que escondem os números

- » Portugal – Itália (fundadores)
- » Países das escolas parceiras:
- » Alemanha
- » Espanha
- » Eslovénia
- » Polónia

37	—	36	—	35	—	34	—	33	—	32	—	31
38	—	17	—	16	—	15	—	14	—	13	—	30
39	—	18	—	5	—	4	—	3	—	12	—	29
40	—	19	—	6	—	1	—	2	—	11	—	28
41	—	20	—	7	—	8	—	9	—	10	—	27
42	—	21	—	22	—	23	—	24	—	25	—	26
43	—	44	—	45	—	46	—	47	—	48	—	49
												...

Descrição resumida: Este projeto visa levar os alunos a investigar e a refletir sobre a história dos números e as suas classificações. Pretende-se ainda conhecer e/ou partilhar significados atribuídos a alguns números em cada país das escolas parceiras e dar a conhecer algumas curiosidades acerca dos mesmos.

Apoio do Clube Europeu

Projeto



eTwinning

Excelente para motivar os alunos

Tecnologia em ação

World in a hug

Interativo

iNovador

Near

Interessante

GratificaNte

Greats projects

OBRIGADA PELA VOSSA ATENÇÃO!
OBRIGADA PELA VOSSA ATENÇÃO!

Bons Projetos

...