

EXPOSICIÓN TESELACIONES.

Estos paneles muestran una selección de las teselaciones únicas y creativamente producidas por los alumnos y alumnas de 3º ESO C, 3º ESO E y 3º ESO F, dentro de la asignatura "MATEMÁTICAS ACADÉMICAS".

Las teselaciones, o divisiones regulares del plano, son arreglos de figuras cerradas que cubren completamente el plano sin superponerse y sin dejar huecos. Partiendo de un cuadrado, los estudiantes han creado sus propios patrones de teselación por traslación, rotación y simetría.

TESSELLATIONS

Tessellations, or regular divisions of the plane, are arrangements of closed shapes that completely cover the plane without overlapping and without leaving gaps.

TRANSLATION

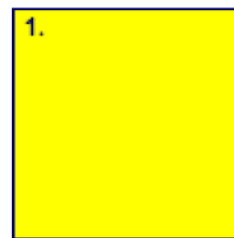
TESSELLATION

translation

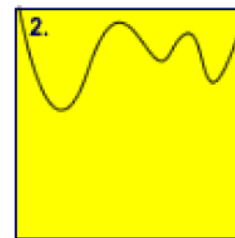


This tessellation requires translating (sliding) the image when tracing.

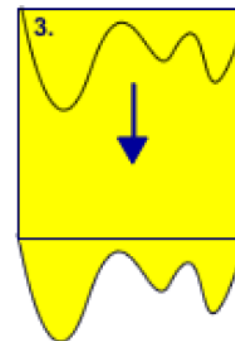
How to construct a
translation
pattern



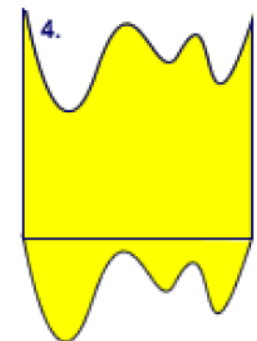
1.
Start with a square



2.
Draw a design on one side of the square.



3.
Cut the design piece out and slide (translation) it across to the opposite side of the square.



4.
Tape the cutout piece to the opposite side of the square to complete the pattern (tile). Slide (translation) the pattern when tracing.

ROTATION TESSELLATION

rotation



This tessellation requires being rotated as it is traced.

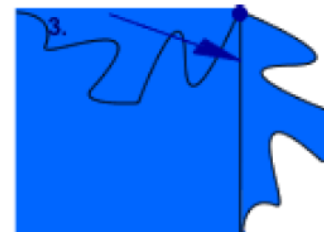
How to construct
a rotation
pattern



1.
Start with a square.



2.
Draw a design
on one side of
the square.



3.
Cut the design piece out
and turn (rotate) it on an
end point until it lies evenly
with an adjacent side of the
square.



4.
Tape the cutout piece to the
adjacent side of the square
to complete the pattern. This
pattern (tile) needs to be
rotated as it is traced.

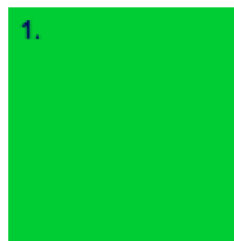
REFLECTION TESSELLATION

reflection



This tessellation requires being rotated or flipped as it is traced.

How to construct
a reflection
pattern



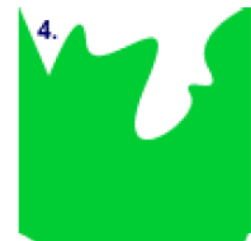
1.
Start with a square.



2.
Draw a design on one side of the square.



3.
Cut the design piece out and slide (translation) it across to the opposite side of the square. Flip (reflect) the cut piece on its vertical axis.



4.
Tape the cutout piece to the opposite side of the square to complete the pattern. This pattern (tile) needs to be rotated or flipped as it is traced.

This is a selection of the tessellations
unique and creatively produced by students
of 3^o ESO C, 3^o ESO E and 3^o ESO F,
within the subject
"MATHEMATICS
FOR ACADEMIC STUDIES".