Maurits Cornelis Escher

By: Garrett Hamlin and Tori Kellar

One of the worlds most famous graphic artists
Born - June 17th, 1898 in Leeuwarden, Netherlands.

Died - March 27, 1972 in Baarn, Netherlands.
Born and Raised

He was raised in the Dutch province of Friesland. George Arnold Escher and Sarah Gleichman Escher were his parents. Together they had three sons and Maurits was the youngest. The Family lived in Leeuwarden where George Escher was an engineer for the government bureau. They had a very fancy house called "Princesshof" which later became a museum of his artwork.

"So let us then try to climb the mountain, not by stepping on what is below us, but to pull us up at what is above us, for my part at the stars; amen"

-M.C. Escher
As a young child he was placed in a special school. He excelled at drawings but his grades were generally poor due to his skin infection.

- 1907 is when he started learning carpentry and piano. He had no talent learning wise and in fact he never truly graduated. He did continue to learn many more forms of art.

- In 1917, he moved to Oosterbeek, Holland. During this year and a few to follow Escher and his friends became very involved in literature and he started writing his own poems and essays.
Life History

- 1922 became an important part of his life. He traveled through Italy and Spain. In Italy he drew sketches, many of these sketches he would later use for various other lithographs and/or woodcuts and wood engravings. Also in Italy he met Jetta Umiker, who he later married in 1924. When their son was born they moved to Switzerland and remained there for two years.

- In 1964, Escher went to North America to give a series of lectures and see his son. He fell ill almost immediately upon arrival, and after surgery in Toronto he returned to Holland.

- Escher's wife was never happy living in Baarn so in 1968 she moved to Switzerland, and left Escher to make more drawings and woodcuts in Baarn.
In 1970 Escher went through another round of surgery. He moved to a little apartment with a studio but he was no longer healthy enough to work. He attempted to remain in contact with his friends but in March 1972 his health rapidly deteriorated. On March 27, 1972 Maurits Cornelis Escher died at age 73.
He is most famous for his so-called impossible structures, such as Ascending and Descending, Relativity, his Transformation Prints, such as Metamorphosis I, Metamorphosis II and Metamorphosis III, Sky & Water I or Reptiles.

M.C. Escher, during his lifetime, made 448 lithographs, woodcuts and wood engravings and over 2000 drawings and sketches.
Escher focused on the division of the plane and played with impossible spaces. He produced polytypes, sometimes in drawings, which cannot be constructed in the real world, but can be described using mathematics. His drawings caught the eyes and looked possible by perception, but were mathematically impossible. Escher also created many interlocking figures that seemed mathematically incorrect.

By using black and white, he was able to create different dimensions to make the mathematically impossible seem possible. Escher’s work encompasses two broad areas: the geometry of space, and what we may call the logic of space.
Mathematical Art

The Shape of Space - *Three Intersecting Planes* shows a mathematical point dealing with the space of nature itself. It exemplifies the artist's concern with the dimensionality of space, and with the mind's ability to discern three-dimensionality in a two-dimensional representation.

The Logic of Space - spatial relations among physical objects which are *necessary*, when violated result in visual paradoxes, sometimes called optical illusions. Escher understood that the geometry of space determines its logic, and likewise the logic of space often determines its geometry. One of the features of the logic of space which he often applied is the play of light and shadow on concave and convex objects.
Mathematical Art

Tessellations - are arrangements of closed shapes that completely cover the plane without overlapping and without leaving gaps.

- Escher exploited basic patterns in his tessellations, applying what geometers would call *reflections, glide reflections, translations, and rotations* to obtain a greater variety of patterns.

Polyhedral - regular solids.

- There are only five polyhedra with exactly similar polygonal faces, and they are called the Platonic solids: the *tetrahedron*, with four triangular faces; the *cube*, with six square faces; the *octahedron*, with eight triangular faces; the *dodecahedron*, with twelve pentagonal faces; and the *icosahedron*, with twenty triangular faces.