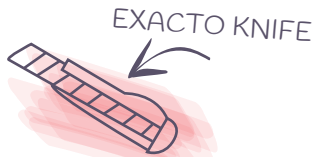
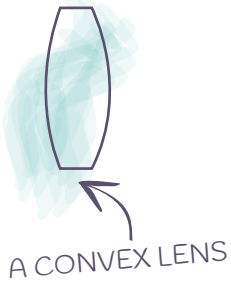


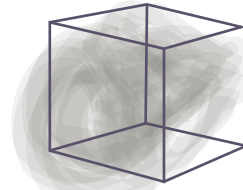
# How to Make a ...CAMERA OBSCURA

museo galileo

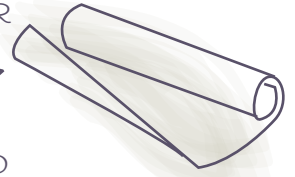
## SUPPLIES NEEDED



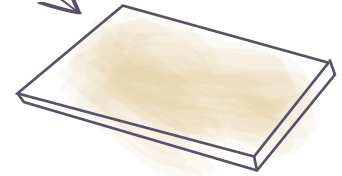
A SHOE BOX  
OF THE FOLLOWING DIMENSIONS  
45X45X60



A PIECE OF  
OPALINE FINE PAPER



A STIFF PIECE  
OF CARDBOARD



## IT COULD BE USEFUL TO HAVE...

- A BLACK PIECE OF CLOTH TO MORE CLEARLY SEE THE IMAGES
- BLACK TEMPERA PAINT AND BRUSH TO PAINT THE INSIDE OF THE BOX BLACK

SCOTCH



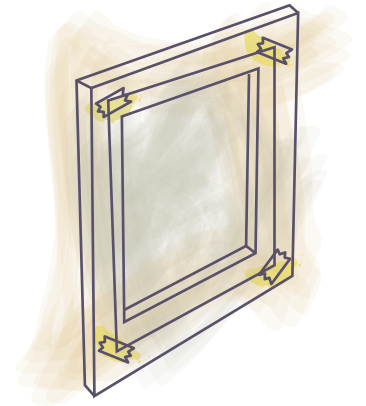
ARE YOU READY? Let's get started!!

## PREPARATION OF THE BOX:

- one side of the box must be open
- on the opposite side make a small hole the same dimensions of the size of your lens in a way that you can wedge it in perfectly
- if the inside of the box is not already a dark color, we recommend that you paint it black with tempera paint

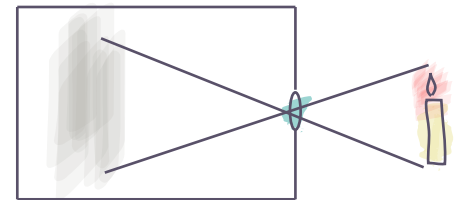
## PREPARATION OF THE SCREEN:

- cut the cardboard in a way that it slides into the box
- at 5 cm of distance from the edge draw another rectangle
- cut this new rectangle out with the exacto knife
- attach the opaline paper to the inside of the frame using scotch tape



## HOW TO WORK THE CAMERA OBSCURA:

- set the box on a table with the open side facing you and the side with the lens pointed towards the object that you would like to visualize
- make sure that the object is well-illuminated
- slide the cardboard frame inside of the box



## FOCUSING YOUR IMAGE:

- in order to focus the image on the piece of paper you will need to slide frame forwards and backwards until it has become in perfect focus

## TIPS AND TRICKS

et voilà! The Magic of Light

- you can purchase a convex lens at a hardware store
- the biconvex lens can be purchased from the hardware store
- it works best if the object is well illuminated
- this experiment works best if carried out in a dark room or by covering you and the box with a dark cloth, like those you see of old-fashioned cameras, on the side of the box that is opened towards you