galileo ${ }^{\circ}$
MAKE

## A MECHANICAL PARADOX

This device, consisting of a double cone, gives the impression of breaking the laws of gravity. That is the reason why in the 18th century it was called "mechanical paradox".


Cut the large straws in:
2 pieces 20 cm long 1 piece 10 cm long 2 pieces 3 cm long 1 piece 1 cm long

Build a frame out
 OF THE STRAWS AS DRAWN BELOW


Print, cut out and glue together the cones FROM THIS WORKSHEET

(2)
Line up and tape the two cones together with masking tape, then insert the wooden bamboo stick through the two points


Cut the flexible elbows of of the bendy straws leaving out 0,5 cm of the straw to be inserted into the bigger ones


To stabllize the frame, TIE TOGETHER THE ENDS WITH THE COTTON THREAD


Watch:
the CONE RISES!!!

The double cone seems
TO GO UP HLL, BUT IN REALITY IT IS DESCENDING. Thanks to the shape of the cones and the DIVERGING BORDERS, ITS CENTER OF GRAVITY ACTUALY DROPS, CREATING AN OPTICAL ILUSION.


