



Let's Make Magdeburg Hemisphere



Put two semicircular arches together and let the air out of them. Let's pull it!!

 **Point**

Lower the pressure burning papers



Prepare



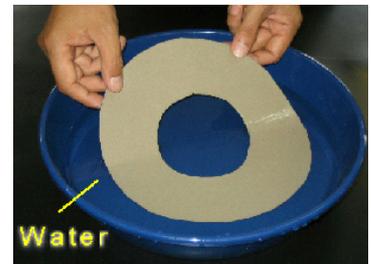
- Bowl (You can buy in 100yen shop)
- Tissue
- Cleaning rag
- Cover paper
- Scissors
- Water
- Lighter



Prepare for the experiment

1

Cut the paper bigger than the rim of bowl as shown in the photo.



2

Soak the paper.

3

Put the bowl on the wet cleaning rag.



Experiment

*** You should do the this experiment with adults because you will use fire.**

1	Put the tissue in the bowl.		
2	Fire the tissue with the lighter.		
3	After 2~3 seconds, put another bowl as shown in the photo.		
4	Cool down the bowl using the cleaning rag.		
5	After it cool, pull both of the bowl in the opposite side..		

 **Information**

💡 The air in the bowl has heated up. When you put the cover, the air gets cold and intends to shrink. So, the pressure from inside gets smaller, the pressure from outside is bigger than inside. For that reason, you can't pull them to separate ways.

💡 You can this experiment burning alcohol or whisky (upper 40°C)



One spoon !



Fire

 **Progress** 

Can you guess where the technique of vacuum are used in around your life.
Let's look the word from 『vacuum』