



## Magical Vacuum

Stem Activities



Ages: 6-8



Less than 30 minutes



Grownup needed



This fascinating science experiment for children explores the secrets of invisible atmospheric pressure.

### Materials Needed

Food colouring  
Candle  
Glass  
Cup of water  
Stirring stick  
Lighter (or matches)  
Plate



### Step-by-step tutorial

#### Step 1

Add food colouring to the water and stir until well mixed.



#### Step 2

Pour the coloured water onto the plate.



#### Step 3

Next, place the candle in the water and light it using the lighter. Be careful with the flame to avoid burns.



#### Step 4

Now, place the glass over the lit candle. Wait patiently and observe the changes happening inside the glass.



### The Science Behind It:

This experiment demonstrates the fascinating phenomenon of atmospheric pressure. The burning candle causes a rapid temperature change inside the glass, leading to a pressure difference. The air pressure outside the glass becomes higher than inside, which actually pushes the water up into the glass.