



*How to make your own lava lamp*

### **Material:**



- clear plastic bottle with a tight seal,

## Lava lamp effect

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- cooking oil,
- dye (eg. tomato puree)
- salt.

### Instruction:

Fill the bottle to two-thirds with water. Add a few drops of food coloring.



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Slowly pour in enough oil to form a layer on the surface of the water.





Sprinkle a few pinches of salt to the oil and see what happens! Next add more salt to do



**Explanation:**



Water and oil are immiscible. The [molecules](#) are composed of even smaller components - [atoms](#)

### [Atoms](#)

have an electric charge - positive, negative or neutral. One part of the water

[molecule](#)

has the advantage of positive charge and the other - negative. Such

[molecules](#)

are called polar

[molecules](#)

- they like to stick together. Oil molecules are different. The positive and negative charges are distributed fairly evenly - a non-polar

[molecule](#)

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When you try to mix polar molecules (like water) and non-polar (such as oil), the polar water molecules adhere to each other, the oil molecules are pushed. Sprinkle salt on the surface of the oil sinks to the bottom carrying globs of oil. This is because the salt is more dense than water. However, unlike oil, the salt is soluble in water, so as soon as it is dissolved, the oil rises back to the surface.