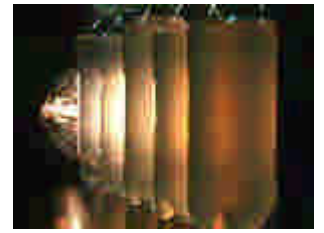




Let's See Red Sunset in PET Bottles



Light the PET bottle (with water and milk in it)



Point

Particles of milk and Scattering of light



Prepare



- Clear PET bottle (5 bottles)
- Milk (liquid soap or floor wax)
- Flashlight
- Syringe
- Water



※PET bottle with square cross section can also be used.

🌸 How to Make 🌸

1 Pour water into PET bottle.



2 Drop 3 drops of milk into water and mix them well.

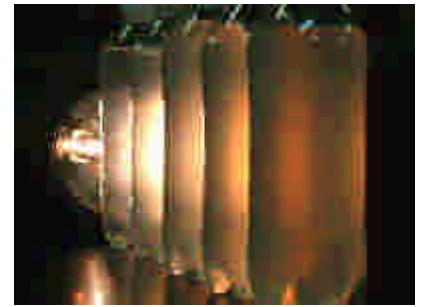


3 Prepare 5 bottles of mixed water and milk. Follow procedure 1 and 2.

🌸Experiment 1 🌸

1

Using flashlight, light a PET bottle behind it .



2 Arrange the PET bottles in straight line.

the color become deep little by little

3

Add PET bottle and observe the color of light.



1 PET bottle



5 PET bottle

🌸Experiment 2 🌸

1 In a separate PET bottle with water, add 5 drops milk and mix well. Put the flashlight behind the PET bottle and observe the color.



2 Add 5 more drops of milk in the bottle and observe the color of light.



no milk



10 drops



20 drops

🌸Progress 🌸

Instead of milk, try to use soap solution, floor wax or other liquid solution.

Information

- ◆ Passing light through PET bottles have situation similar to the connection between the sun(day time) and Earth.
- ◆ In the afternoon, sunlight reaches thin layer of air. Because of that, the blue light are scattered so the sunset appear yellowish and reddish.
- ◆ Passing light through PET bottles have also situation similar to the connection between the sun (evening) and the earth. In the evening, sunlight reaches thick layer of air. The light from the sun is almost red and we can see the red sunlight. That light hit the cloud and dust particles. That is red sky at night.