

International Day of Light 16May 2021

Competition Name : ***LIGHT of The BOSPHORUS***

Student Name : Yusuf Eren Şener

School Name : Korkmaz Yigit Anatolian High School

Mentor Teacher : Selma Çınar

City-country : Istanbul -Turkey



There are many scientific scientific evaluations in the photograph, and first I wanted to explain the redness of the change in the sunset. In the middle of the day, when the Sun is directly on your head, it is small for the size required for the size of his coat. Thus, the total amount of scattering is also small. However, it must pass through a larger part of it. Therefore, the total amount of scattering is also high. High-energy blue light is scattered approximately nine times more than low-energy red. This causes the object to appear more red, as it reduces the blue from the white color. Secondly, we see people as swimming in the sea and we can explain this with the "Archimedes principle", which is one of the fundamental laws of physics. Objects that are lighter in self-weight than water are pushed up by the water. Because the buoyant force exerted by the water upwards will overcome the mass force (gravitational force) exerted by the object towards the center of the earth. Using the same logic, let's consider the amount of air that fills our lungs and parts of our body cavities. Air has a lower self-weight than water. Therefore, acting as a buoy, it lifts our body up according to the "Archimedes principle". In this way, even someone who cannot swim can stand on the water without sinking if he holds his body straight. Buoyancy of water varies depending on the salt content of the water. For example; The "Dead Sea" in Jordan, which is

considered to be the world's deepest place, has a salinity of 29-33%. For this reason, people who enter the water here are very little submerged. If we look at cloud formation, the condensed water vapor produces tiny water droplets and ice crystals, usually 0.01 mm in diameter. Billions of droplets and crystals together form a structure called cloud. Clouds reflect all visible wavelengths. They are usually white but can also appear as gray or black. They look gray or black because they don't let sunlight through because of their thickness. Maybe cumulus and cirrus cloud types can be found in this region. In the mountain formation, we see the crimson mountains because I took this photo in Antalya. Materials eroded by external forces such as streams, winds, and glaciers are deposited in large depressions of the earth's crust. These depressions are called geosynclines. If flexible sedimentary materials accumulated in geosynclines undergo various side pressures, they fold and rise to the sea surface. Thus, the great fold mountains of the earth are formed. The sections that remain higher as a result of folding are called anticline, and the sections that are lower are called synclines. Finally, if we look at the formation of sea sand, beach sand is also formed by erosion. For thousands of years, rocks in coastal areas are eroded by the impact of waves and accumulate deposits. Weathering, stream material transport, sea creatures interacting with rocks accelerate the beach formation process. When there is enough sand, the beach acts as a barrier to prevent further erosion of the land. Sea sand (or ocean sand) is made up of sediment carried into the ocean and erosion of ocean rocks. The thickness of the sand layer varies. This type of sand is ideal for construction. The marine ecosystem and local fisheries in Europe have been heavily damaged by sand mining.

Yusuf Eren Şener
