

The superior detail that permits life under the ice

People seldom wonder why water is transparent, how sand can become transparent glass and play an important role in our lives, or how a giant ship can sail without sinking. So familiar to us are all these things that perhaps no one has ever wondered what would happen if sand did not turn into glass at a sufficiently high temperature. A little consideration of such things will show that they have all been equipped with similar and sometimes vital details.



One such detail is water. At sub-zero temperatures, water turns into ice. This is just one of many natural phenomenon in our lives, and yet this transformation violates the known laws of physics. The special details in water, created by Allah for a specific purpose, are one of the reasons why life on Earth exists.

All known substances contract as their temperatures fall. As liquids contract and lose volume, their densities increase and their cold parts become heavier. This is why matter's solid state is always heavier than its liquid state. We can cite the liquid and solid states of steel as an example of this. Contrary to all other known liquids, however, water contracts until it reaches a specific temperature (+4°C), after which it begins to expand until it freezes. Thus, water's solid state is lighter than its liquid state. As a result, according to *normal* physical laws, ice should sink instead of floating. This is why the lower parts of frozen seas and lakes are covered in water at 4 degrees, which makes it possible for life to survive. If ice did not float, then most of the water on Earth would freeze entirely, no life would be left in any body of water, and the planet's ecological equilibrium would be irreparably damaged. In other words, life as we know it would come to an end.



This important detail, an amazing blessing for human beings, makes those who are aware of it more sensitive to the blessings created by Allah, the Creator of each physical law. However, He can create without physical causes, if He wills to do so, and is not bound by any law or rule. His sublime, detailed artistry prevails throughout all of Creation:

Is He Who creates like him who does not create? So will you not pay heed? If you tried to number Allah's blessings, you could never count them. Allah is Ever-Forgiving, Most

Merciful. (Surat al-Nahl, 17-18)