

Imagine that you are preparing a project with your friend. You have found some interesting material for the presentation and you want to read this text to your friend. You have 1.5 minutes to read the text silently, then be ready to read it out aloud. You will not have more than 1.5 minutes to read it.

The usual answer that water doesn't have any colour. It's clear or transparent and the sea only appears blue because of the reflection of the sky. But in fact water really is blue. It's an incredibly faint shade, but it is blue. You can see this in nature when you look into a deep hole in the snow, or through the thick ice of a frozen waterfall. If you took a very large, very deep white pool, filled it with water and looked straight down through it, the water would be blue.

This faint blue tinge doesn't explain why water sometimes takes on a strikingly blue appearance when we look at it rather than through it. Reflected colour from the sky obviously plays an important part. But not all the light we see is reflected from the surface of the water. Some of it is coming from under the surface. The more impure the water, the more colour it will reflect.