# Relative space in the known material world 

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We spend the vast majority of our time between the ground and the top of a two-story home. From here, we present factorials both above and below one meter.

At one meter times one thousand, we find the kilometer.
At one meter divided by one thousand, we find the millimeter.
At one meter divided by one million, we find the micrometer. Staphylococcus is 2 micrometers wide, a very small life form that can wreak very large havoc of the human immune system. At one meter times ten million, Earth is about 12, 760, 000 meters wide
(12. 76 million meters).

At one meter divided by ten million, a plant Cell is 0.00001276 meters wide (12. 76 millionths of a meter), and Baker's yeast 20 micrometers. At one meter divided by 100 million, a human hair is about 200 micrometers wide.

At one meter divided by one billion, Ebola virus is 200 nanometers wide It is helpful to explain in terms of common factorials of one meter to better understand how we fit into the universe; it is helpful to observe where we are in terms of space. Where do we fit We are readily conscious of things somewhere between the width of our hair and the jets above.

