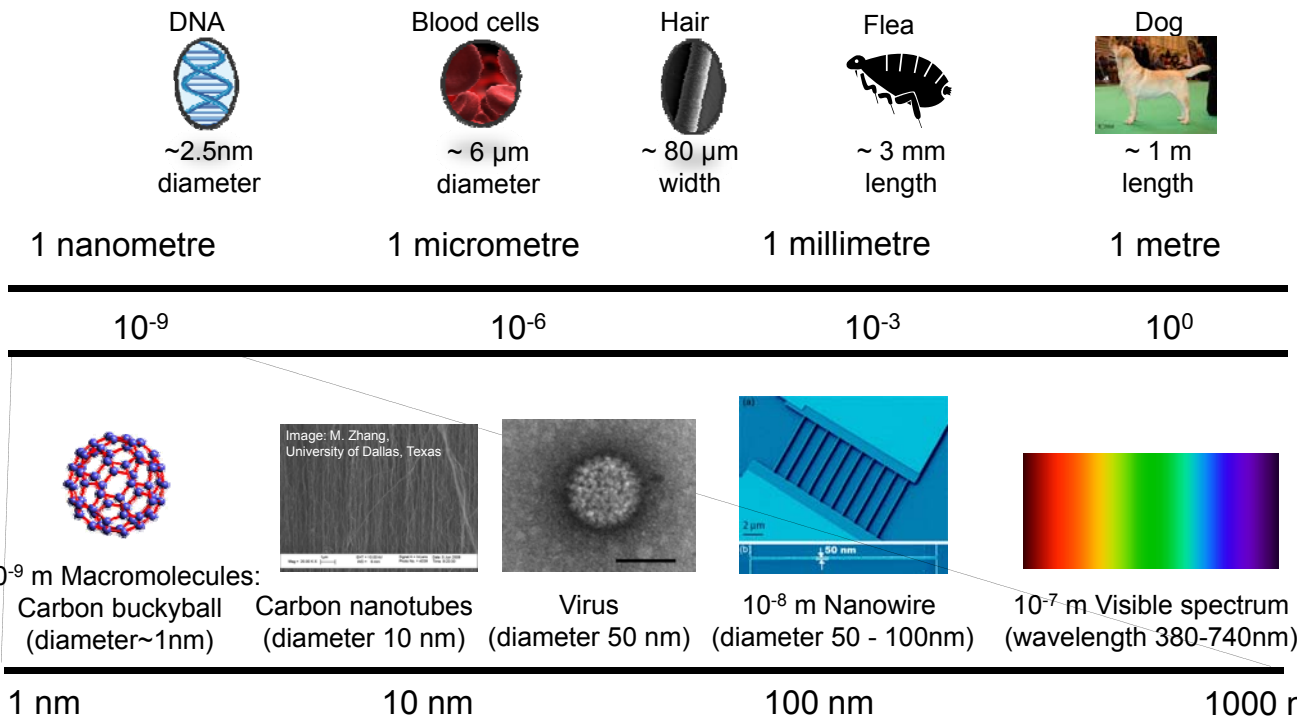
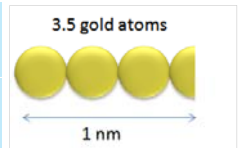


Nanoscience is the science of the very small. Nano is the prefix for units that are  $10^{-9}$  in dimension. A nanometre is a billionth of a metre (a millionth of a millimetre). The nanoscale is normally defined as lying between 1 nm and 100 nm.



Nanoscience deals with clusters of atoms and molecules. These assemble into nanomaterials, which have at least one dimension in the nanoscale.



## Nano in Nature

Did you know? The unique properties many animals and plants possess are due to nanostructures that exist within them!

The beautiful colours of some butterflies and moths arise from nanostructures on their wings.

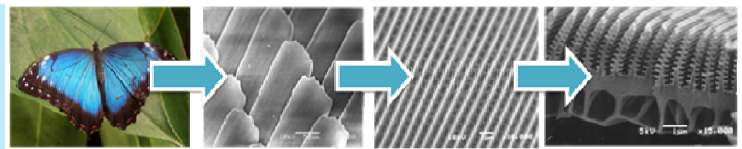


Image credit: S. Yoshioka, Osaka University, Japan

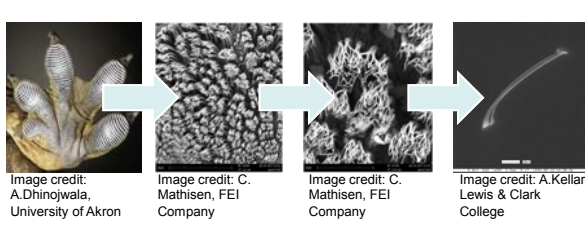


Image credit: A.Dhinojwala, University of Akron; Image credit: C. Mathisen, FEI Company; Image credit: C. Mathisen, FEI Company; Image credit: A.Kellar, Lewis & Clark College

Geckos can walk upside down, even on wet and dirty surface. Their feet aren't covered with adhesive. They are covered in millions of nano-spatulae that greatly increase their surface area!