



1. The nanoscale: Solutions

In order to understand the scale we are dealing with when talking about nanotechnology, **Figure 1** explains the different size ranges for materials from the millimetre to the nanoscale. DNA (deoxyribonucleic acid) is an amazing example of a biological device functional at the nanoscale. The diameter of this double helical molecule is as small as 2-12 nm. At the nanoscale,



a) All of the vials contain gold nanoparticles. The colour of the gold nanoparticle changes as its size changes. This change in colour is due to a difference in the light-electron interaction.

Resources for further reading:

https://www.nnin.org/education-training/k-12-teachers/nanotechnology-curriculum-materials/search?key=&field_topic_tid%5B%5D=20