

HOW TALL ARE YOU?

How Tall Are You?

Try measuring yourself in nanometers!

Are you super tall—or is a nanometer super small?

One meter is a billion nanometers. (A meter is a little longer than a yard.)

So if you're a little over three feet tall, you measure a billion nanometers! That sounds pretty impressive, but it doesn't mean that you're super tall—it means that a nanometer is incredibly small.

Here are some other ways to think about how tiny a nanometer is:

- The ridges in your fingerprints are around 250,000 nanometers wide.
- A strand of your hair is around 75,000 nanometers wide.
- Your DNA is 2 nanometers wide.
- Your fingernails grow 1 nanometer every second.

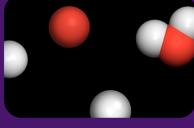
What's measured in nanometers?

A nanometer is a billionth of a meter. That's really tiny!

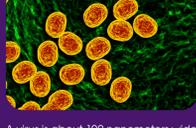
Nanometers are used to measure things that are too small to see, like atoms and molecules. It takes a lot of nanometers to measure something relatively big, like you.



A red blood cell is about 10,000 nanometers wide



An atom is about 1 tenth of a nanometer wide



A virus is about 100 nanometers wide



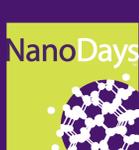
A bacteria cell is about 1,000 nanometers wide



A sugar molecule is about 1 nanometer wide



A cell wall is about 10 nanometers wide



This project was supported by the National Science Foundation under Grant No. ESI-053536. Any opinions, findings, and conclusions or recommendations expressed in this program are those of the author(s) and do not necessarily reflect the view of the Foundation.

© 2008, ScienceCenter, Ithaca, NY.

