

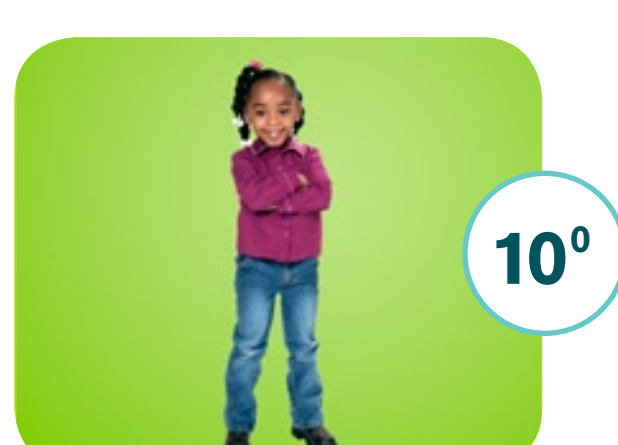
How small is nano?

Measuring different things

Macrosizes

Child

A child is about 1 meter tall
1 meter = 1,000,000,000 nm (1 billion nanometers)



Hand

A hand is about 1 decimeter wide
1 decimeter = 100,000,000 nm (100 million nanometers)



Pinky Finger

A pinky finger is about 1 centimeter wide
1 centimeter = 10,000,000 nm (10 million nanometers)



Freckle

A freckle is about 1 millimeter wide
1 millimeter = 1,000,000 nm (1 million nanometers)



Strand of Hair

A hair is about 0.1 (one tenth) of a millimeter wide
0.1 millimeter = 100,000 nm (100 thousand nanometers)



Macrosizes

meters, decimeters, centimeters, millimeters

Microsize

Red Blood Cell

A red blood cell is about 10 micrometers wide
10 micrometers = 10,000 nm (10 thousand nanometers)



Bacteria

A bacteria cell is about 1 micrometer wide
1 micrometer = 1,000 nm (1 thousand nanometers)



Virus

A virus is about 0.1 (one tenth) of a micrometer wide
0.1 micrometer = 100 nm (1 hundred nanometers)



Microsize

micrometers

Nanosize

Cell Membrane

A cell membrane is about 10 nanometers wide
10 nanometers = 10 nm



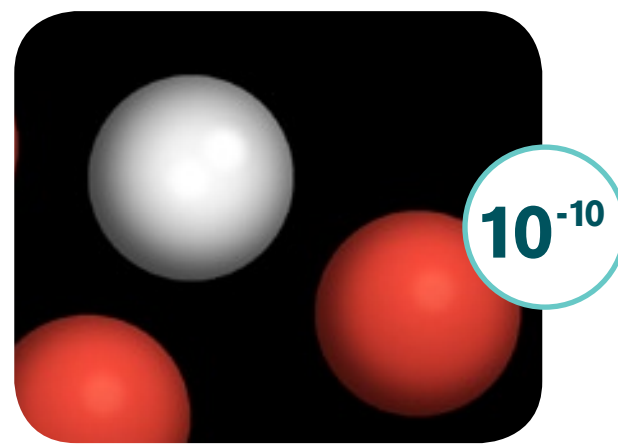
Sugar Molecule

A sugar molecule is about 1 nanometer wide
1 nanometer = 1 nm



Atom

An atom is about 0.1 (one tenth) of a nanometer wide
0.1 nanometer = 0.1 nm

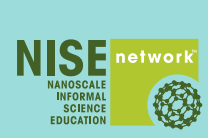


Nanosize

nanometers



Emily Maletz
graphic design



Created in 2008 by ScienceCenter, Ithaca, NY, www.sciencecenter.org

Accompanying book available for purchase at www.k5u.com

This material is based upon work supported by the National Science Foundation under Agreement No. ESI-0523536. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.