

# **Middle School Mixtures Unit Powers of 10 Transparencies and Card Cut-Outs**

Blank Transparency Master

Page 2

Answers Transparency Master

Page 3

Partial Answers Transparency Master

Page 4

Cutouts

Pages 5-10

# Comparing Powers of Ten (Measures in Meters)

$10^{-10}$     $10^{-9}$     $10^{-8}$     $10^{-7}$     $10^{-6}$     $10^{-5}$     $10^{-4}$     $10^{-3}$     $10^{-2}$     $10^{-1}$     $10^0$     $10^1$     $10^2$     $10^3$     $10^4$     $10^5$

Can you think of any items that are smaller than  $10^{-10}$ ?

Nanometer

Millimeter

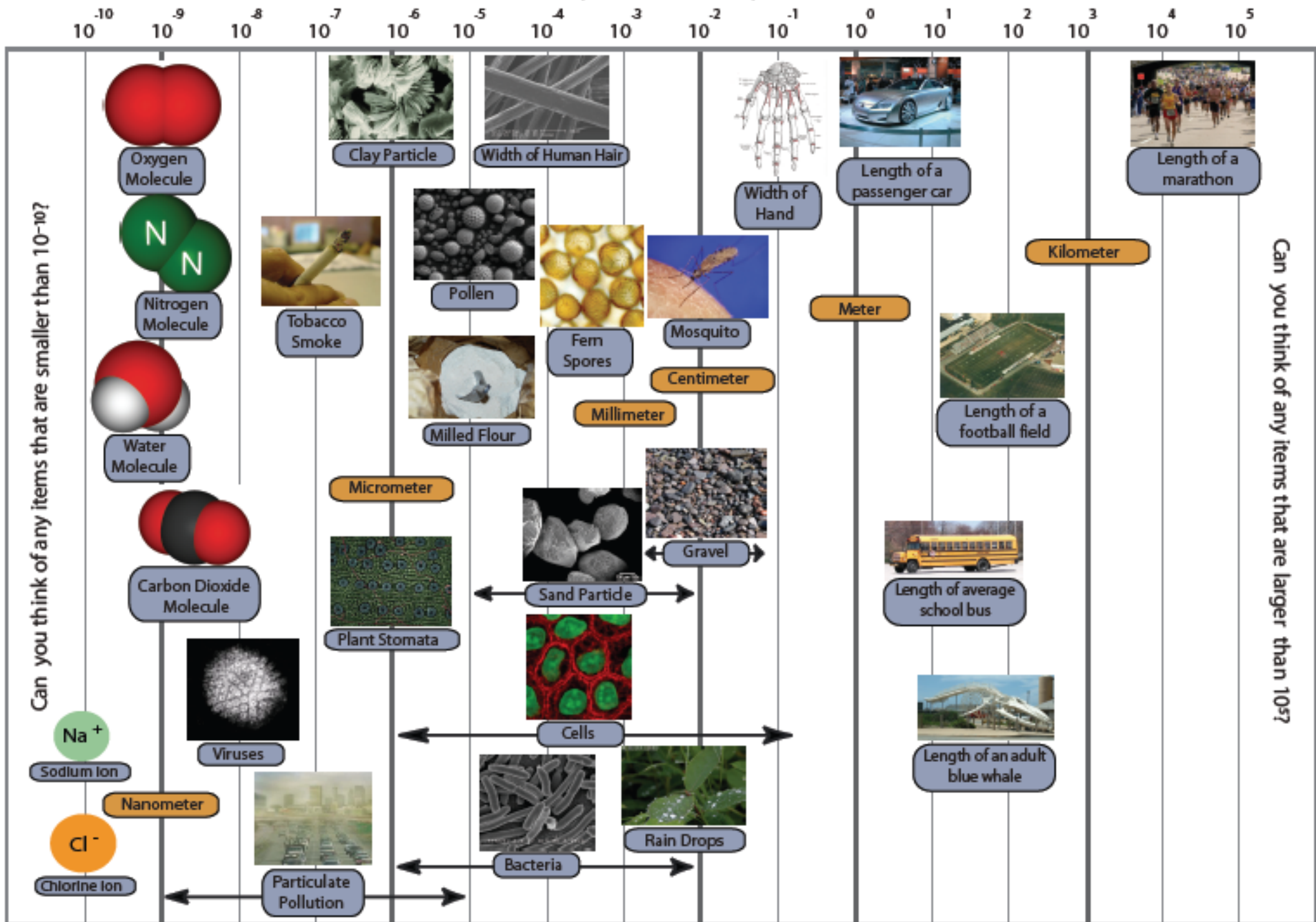
Centimeter

Meter

Kilometer

Can you think of any items that are larger than  $10^5$ ?

# Comparing Powers of Ten (Measures in Meters)



Can you think of any items that are smaller than  $10^{-10}$ ?

Can you think of any items that are larger than  $10^5$ ?

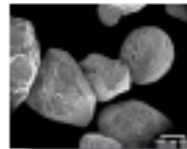
# Comparing Powers of Ten (Measures in Meters)



Length of a  
passenger car



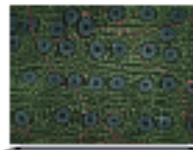
Milled Flour



Sand Particle



Length of average  
school bus



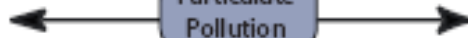
Plant Stomata



Rain Drops



Particulate  
Pollution



Comparing Powers of Ten  
Cutouts (Page 1)



Mosquito



Plant Stomata



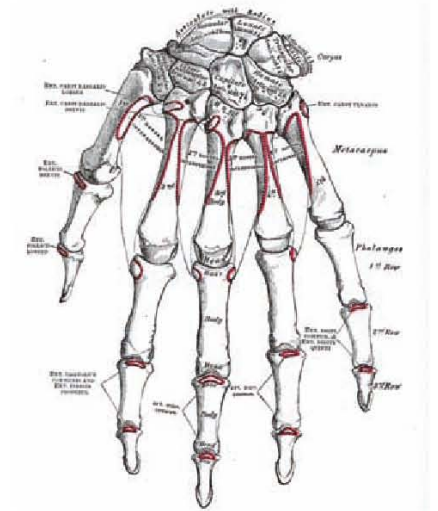
Tobacco  
Smoke



Gravel



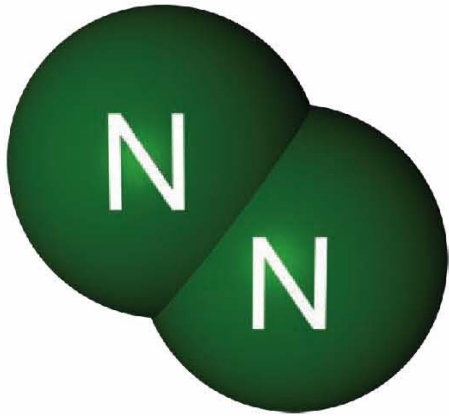
Milled Flour



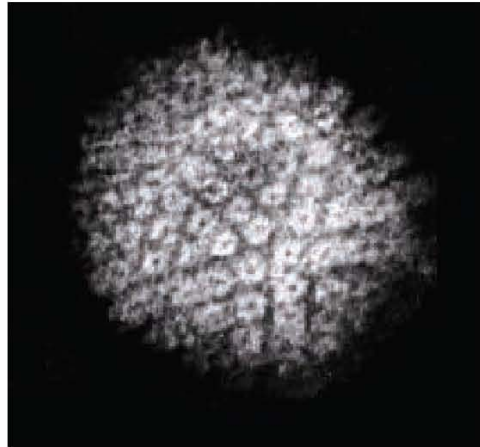
Width of  
Hand



Comparing Powers of Ten  
Cutouts (Page 2)



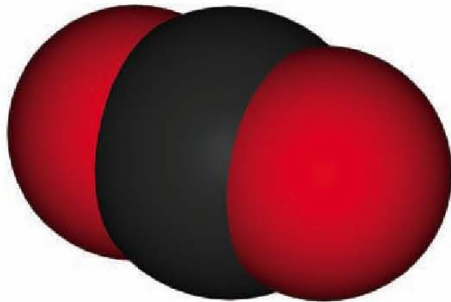
Nitrogen  
Molecule



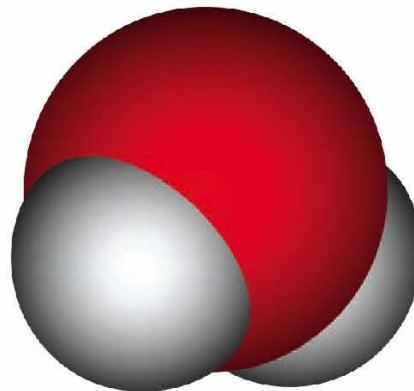
Viruses



Length of average  
school bus



Carbon Dioxide  
Molecule

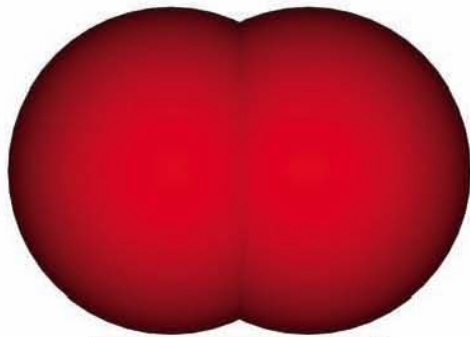


Water  
Molecule



Rain Drops

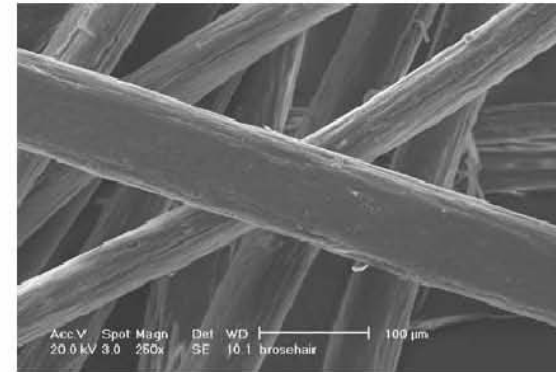
Comparing Powers of Ten  
Cutouts (Page 3)



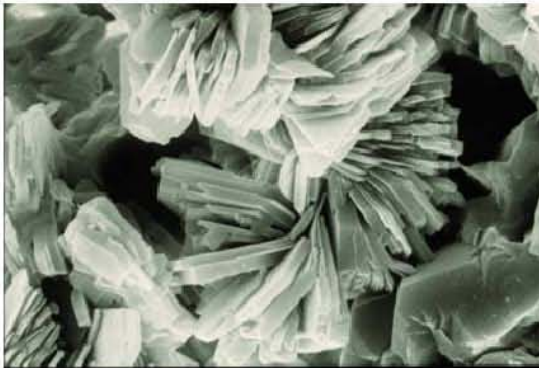
Oxygen  
Molecule



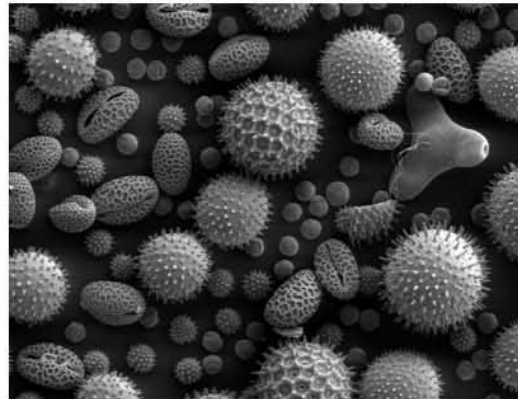
Fern  
Spores



Width of Human Hair



Clay Particle



Pollen



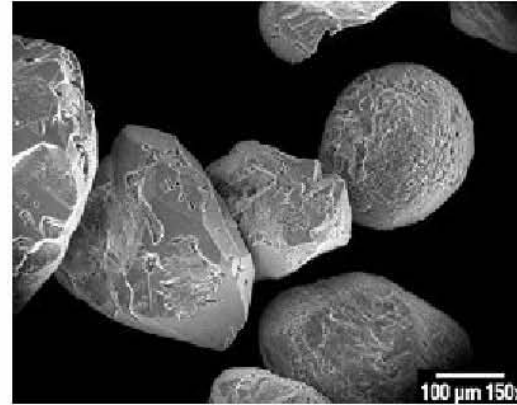
Length of a  
passenger car



Comparing Powers of Ten  
Cutouts (Page 4)



Length of a  
football field



Sand Particle



Length of a  
marathon



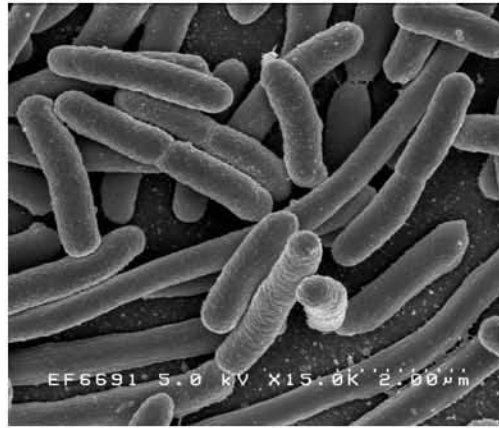
Particulate  
Pollution



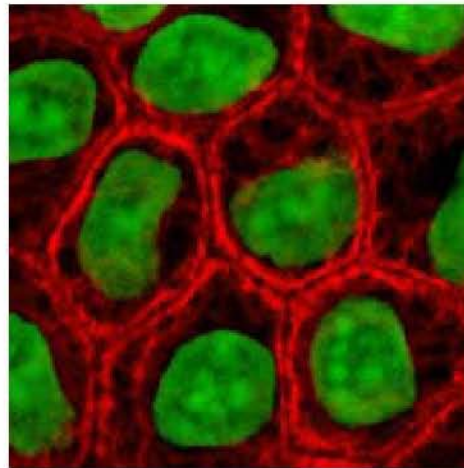
Length of an adult  
blue whale



Comparing Powers of Ten  
Cutouts (Page 5)

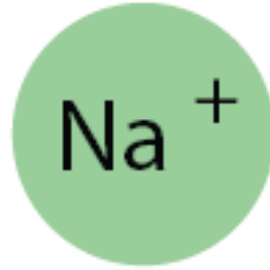


Bacteria



Cells

Comparing Powers of Ten  
Cutouts (Page 6)



Sodium Ion



Chlorine Ion

$\text{Na}^+\text{Cl}^-$   
(salt dissolved in water)