Scientific Notation

Name:	
Date:	Per.

Look up the following items online, and put them in standard notation and scientific notation.

Item	Standard Notation	Scientific Notation
Planet Weights:		
Mercury (kg)		
Venus (kg)		
(Mg)		
Earth (kg)		
Mara (Ira)		
Mars (kg)		
Planet Distances:		
Earth to the Sun (m)		
Earth to the Moon (m)		
Earth to Andromeda		
(Light years)		
a .		
Science:		
Size of a blood cell (m)		
Size of a skin cell (m)		
Size of a skin cell (m)		
Size of a nucleus (m)		
Size of a proton (m)		
Size of a proton (m)		
Size of an electron (m)		
VV-:-1-4 -£ A:1		
Weight of Animals:		
Blue Whale (lbs)		
Whale Shark (lbs)		
\/		
Elephant (lbs)		
Ant (lbs)		
Aut (108)		

Item	Standard Notation	Scientific Notation
Populations: City of Your Choice		
State of Your Choice		
	oose 3 from the following list: Ir nes, Pakistan, Bangladesh, Spain	ndia, China, Brazil, US, Canada, Mexico, Fra , Hungary
Country 1:		
Country 2:		
Country 3:		

Water molecule 0.000000002 meters
Bacteria E. Coli = 0.000002 meters
Virus 0.00000002 meters meters
Plant/animal cells = 0.00001 – 0.0001 meters
Cheek cell = 0.00006 meters
Red Blood Cell = 0.000008 meters

Leaf cell = 0.000030 meters

diameter of a hydrogen atom 0.000000001 m 0.000000002 m Diameter of a DNA helix thickness cell membranes 0.000000007 m 0.000000100 m HIV virus 0.00000120 m Large virus (influenza virus) 0.000005 m length of chloroplast 0.000006 m the Nucleus 0.000009 m Human red blood cell 0.000090 small Amoeba (like creatures in pond water) up to 0.000800 m large Amoeba 0.000120 m Human Egg cell 0.001 m Diameter of the squid giant nerve cell 0.120 m Diameter of an ostrich egg (a dinosaur egg was much larger) 3 m Length of a nerve cell of giraffe's neck

Real Life Examples of Scientific Notation

- 7 x109= Population of the world is around 7 billion written out as 7,000,000,000
- 1.08 x109 = Approximate speed of light is 1080 million km per hour or 1,080,000,000 km per hour
- 2.4 x105 = Distance from the Earth to the moon is 240 thousand miles or 240,000 miles
- 9.3 x107= Distance from the Earth to the sun is 93 million miles or 93,000,000 miles
- · 3.99 x1013= Distance from the sun to the nearest star (Proxima Centauri) is 39,900,000,000,000 km
- \cdot 9.4605284 \times 1015 = Distance light travels in a year is less than 9.5 trillion kilometers, or exactly 9,460,528,400,000,000

km

- 1.4 x108 = Amount of water surface area on the Earth is 140 million square miles or 140,000,000 square miles
- 1.0 x1014= Approximate number of cells in the human body is 100 trillion or 100,000,000,000
- 1.332 x10-3= Density of oxygen is 1332 millionths g per cc or .001332 g per cc
- · 2.4 x10-3 = Diameter of a grain of sand is 24 ten-thousandths inch or .0024 inch

7.53 x10-10= Mass of a dust particle is 0.000000000753 kg

Planet Weights:

Mercury: 3.3022 x 10²² kg

Venus: 4.8685 x 10²⁴ kg

Earth: 5.9722 x 10²⁴ kg

Mars: 6.4185 x 10²² kg

Science:

Size of a blood cell Size of a skin cell Size of a nucleus Size of a proton Size of an electron

Weight
Ant 0.000003 kg
elephant – 6 tonnes
blue whale – 200 tonnes
whale shark – 18,000 kg

Distances
Earth to Sun
Earth to Moon
Earth to Andromeda 2.3×10^6 light years
1 light year = 5.9×10^{12} miles

Populations

City

State

Country pick three (India, China, Brazil, US, Canada, Mexico, France, Kenya, Egypt, Dubai, Phillipines, Pakistan, Bangladesh, Spain, Hungary,

World

Skin cell