

# MARS FACTS



- Quick Facts
- Detailed Facts
- Picture Facts



	Earth	Mars
Average Distance from Sun	93 million miles	142 million miles
Average Speed in Orbiting Sun	18.5 miles per second	14.5 miles per second
Diameter	7,926 miles	4,220 miles
Tilt of Axis	23.5 degrees	25 degrees
Length of Year	365.25 Days	687 Earth Days
Length of Day	23 hours 56 minutes	24 hours 37 minutes
Gravity	2.66 times that of Mars	0.375 that of Earth
Temperature	Average 57 degrees F	Average -81 degrees F
Atmosphere	nitrogen, oxygen, argon, others	mostly carbon dioxide, some water vapor
Number of Moons	1	2

## - DETAILED FACTS ABOUT MARS -



### THE PLANET

- Size
- Bulk
- Gravity & More
- Temperature

### IN SPACE

- Distance
- Orbit
- Speed
- Day

Composition

Year

Tilt / Seasons



## IN OUR NIGHT SKY

- Mars Opposition
- Solar Conjunction
- Mars Retrograde
- Mars Close Approaches



## IN HISTORY

Human Time

LEARN ABOUT MARS FACTS WITH PICTURES!

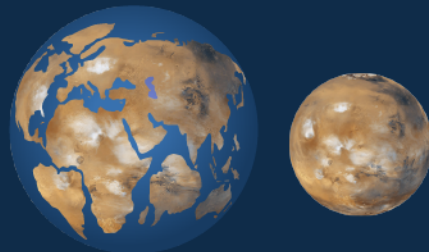
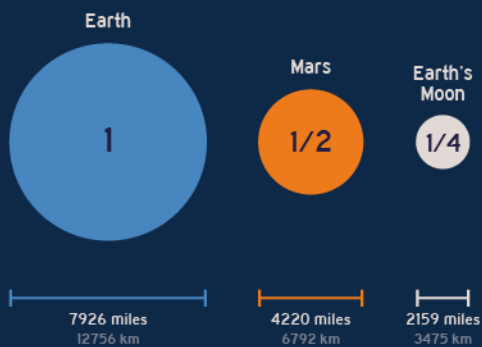


# MARS QUICK FACTS

FOR MORE INFO, VISIT:  
[MARS.NASA.GOV](https://mars.nasa.gov)

## SIZE

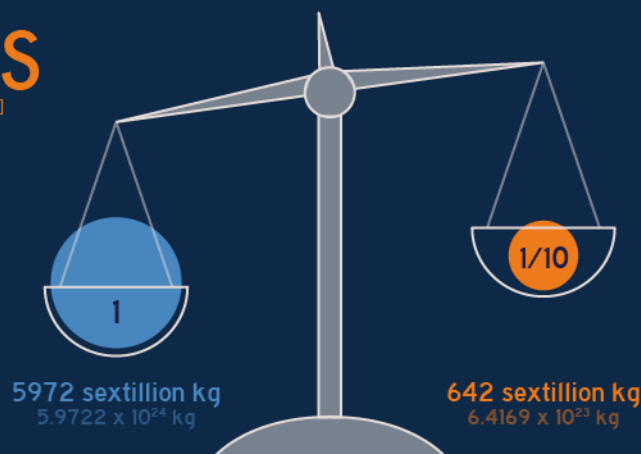
[equatorial diameter]



The land area of Earth is similar to that of Mars.

## MASS

[amount of matter]



# VOLUME

[amount of space occupied]

Mars has about 15% of Earth's volume.  
To fill Earth's volume, it would take  
over 6 Mars volumes.



260 billion  $\text{mi}^3$  39 billion  $\text{mi}^3$   
1.1 trillion  $\text{km}^3$  163 billion  $\text{km}^3$

# DENSITY

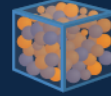
[average]



Mars is about 71% as dense as Earth.

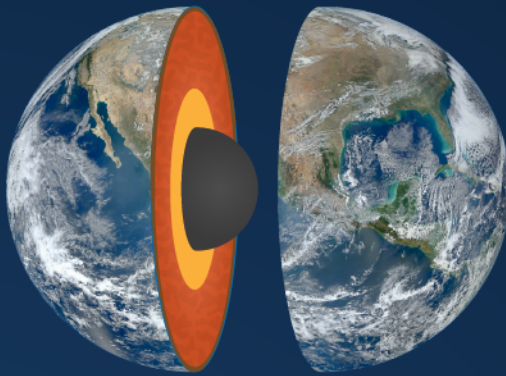
5.5  $\text{g/cm}^3$

3.9  $\text{g/cm}^3$



# STRUCTURE

Scientists are not yet certain if the  
core of Mars is solid, liquid, or in two  
distinct sublayers, like Earth's. Future  
measurements will tell us more.



Crust

Mantle

Liquid Outer Core

Solid Core

# DISTANCE

[average distance from orbit path to the Sun]



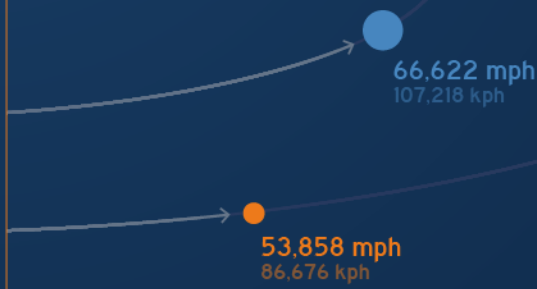
142,000,000 miles (229,000,000 km) = 1.5 AU (Astronomical Units)

93,000,000 miles (150,000,000 km) = 1 AU

# SPEED

# YEAR

[velocity relative to the Sun]

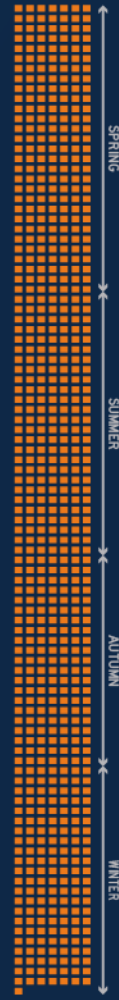
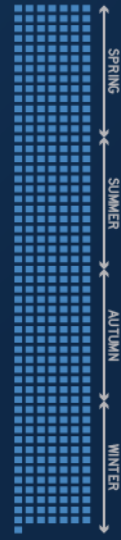


[approximately]



365  
Earth Days

687  
Earth Days



# DAY

[approximately]



24 HOURS  
[23:56 SIDEREAL]



24 HOURS  
+ 40 MINS  
[24:37 SIDEREAL]

# TILT / SEASONS

[approximate tilt]

23.5°



Similar tilts mean that Mars has seasons just like Earth. But since Mars' year is almost twice as long, its seasons are longer too.

25°



Because of Mars' elliptical orbit, some seasons are longer than others. (The northern hemisphere has a longer spring and summer, while the southern hemisphere has a longer autumn and winter.)

[Northern hemisphere seasons shown]

# ATMOSPHERE

[characteristics and approximate composition]

OVER 100 TIMES DENSER THAN MARS' ATMOSPHERE



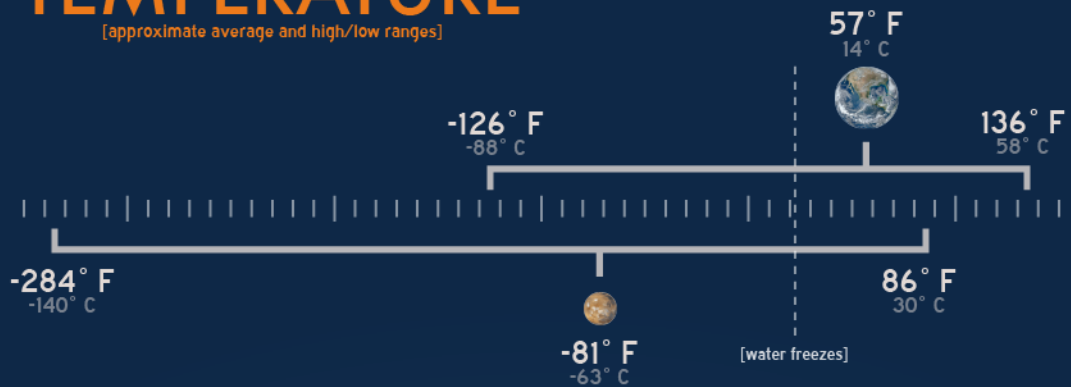
- 78% NITROGEN
- 21% OXYGEN
- 1% OTHER

- 96% CARBON DIOXIDE
- <2% ARGON
- <2% NITROGEN



# TEMPERATURE

[approximate average and high/low ranges]



# WEIGHT

[effect of gravity on matter]

Weight is a measure of gravity's effect on mass. It varies based on factors like your mass, the planet's gravity, and the distance between you and the planet's center.

If you weighed 100 lbs on Earth, you would weigh only 38 lbs on Mars!



# GRAVITY

On Mars, you'd experience **62.5% less gravity** than you're used to on Earth

