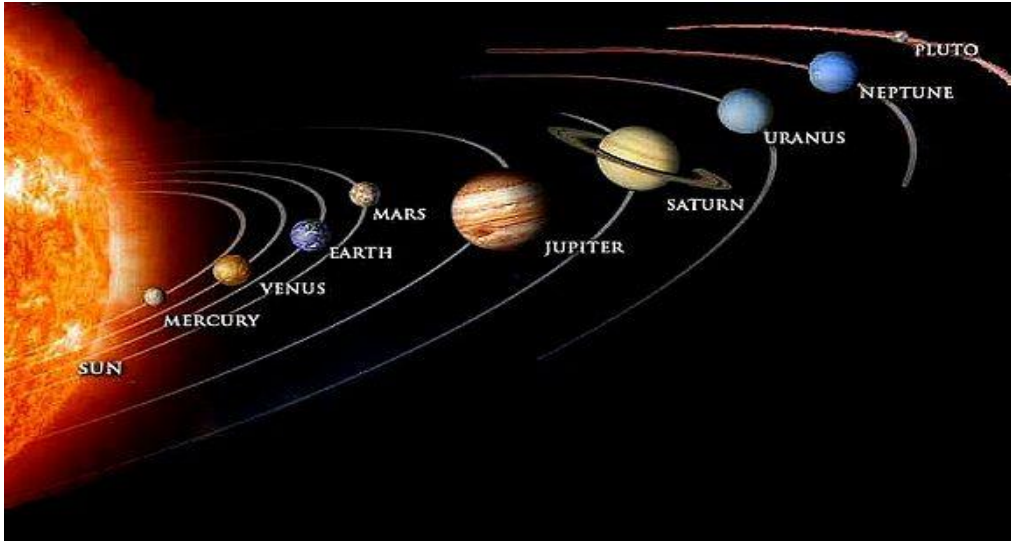


EARTH THE THIRD PLANET FROM THE SUN



IS THE FIFTH-LARGEST PLANET IN THE SOLAR SYSTEM; ONLY THE GAS GIANTS JUPITER, SATURN, URANUS, AND NEPTUNE ARE BIGGER. EARTH IS THE LARGEST OF THE TERRESTRIAL PLANETS OF THE INNER SOLAR SYSTEM, BIGGER THAN MERCURY, VENUS, AND MARS. BUT HOW BIG IS EARTH, EXACTLY?

RADIUS, DIAMETER AND CIRCUMFERENCE

THE RADIUS OF EARTH AT THE EQUATOR IS 3,963 MILES (6,378 KILOMETERS), ACCORDING TO NASA'S GODDARD SPACE FLIGHT CENTER IN GREENBELT, MARYLAND. HOWEVER, EARTH IS NOT A SPHERE. THE PLANET'S ROTATION CAUSES IT TO BULGE AT THE EQUATOR. EARTH'S POLAR RADIUS IS 3,950 MILES (6,356 KM) – A DIFFERENCE OF 13 MILES (22 KM).

USING THOSE MEASUREMENTS, THE EQUATORIAL CIRCUMFERENCE OF EARTH IS ABOUT 24,901 MILES (40,075 KM). HOWEVER, FROM POLE

TO POLE – THE MERIDIONAL CIRCUMFERENCE – EARTH IS ONLY 24,860 MILES (40,000 KM) AROUND. OUR PLANET'S SHAPE, CAUSED BY THE FLATTENING AT THE POLES, IS CALLED AN OBLATE SPHEROID.

HOW FAST ARE WE SPINNING?

EARTH'S SPIN IS CONSTANT, BUT THE SPEED DEPENDS ON WHAT LATITUDE YOU ARE LOCATED AT. HERE IS AN EXAMPLE. THE CIRCUMFERENCE (DISTANCE AROUND THE LARGEST PART OF THE EARTH) IS 24,898 MILES (40,070 KILOMETERS), ACCORDING TO NASA. (THIS AREA IS ALSO CALLED THE EQUATOR.) IF YOU ESTIMATE THAT A DAY IS 24 HOURS LONG, YOU DIVIDE THE CIRCUMFERENCE BY THE LENGTH OF THE DAY. THIS PRODUCES A SPEED AT THE EQUATOR OF ABOUT 1,037 MPH (1,670 KM/H).

THE EARTH IS ALWAYS IN MOTION. ALTHOUGH IT SEEMS LIKE WE ARE STANDING STILL ON THE EARTH'S SURFACE, THE EARTH IS SPINNING ON ITS AXIS AND ORBITING THE SUN. WE CANNOT FEEL IT BECAUSE IT IS A CONSTANT MOTION, JUST LIKE BEING IN AN AIRPLANE. WE ARE MOVING AT THE SAME RATE AS THE PLANE, SO WE DO NOT FEEL LIKE WE ARE MOVING AT ALL.

HOW FAST IS THE EARTH ROTATING ON ITS AXIS?

THE EARTH ROTATES ON ITS AXIS ONCE EACH DAY. BECAUSE THE CIRCUMFERENCE OF THE EARTH AT THE EQUATOR IS 24,901.55 MILES (ABOUT 40,075.16 KM), A SPOT ON THE EQUATOR ROTATES AT APPROXIMATELY 1,037.5646 MILES PER HOUR (1,037.5646 TIMES 24 EQUALS 24,901.55), OR 1,669.8 KM/H.

AT THE NORTH POLE (90 DEGREES NORTH) AND SOUTH POLE (90 DEGREES SOUTH), THE SPEED IS EFFECTIVELY ZERO BECAUSE THAT SPOT ROTATES ONCE IN 24 HOURS, AT A VERY, VERY SLOW SPEED.

TO DETERMINE THE SPEED AT ANY OTHER LATITUDE, SIMPLY MULTIPLY THE COSINE OF THE DEGREE LATITUDE TIMES THE SPEED OF 1,037.5646.

THUS, AT 45 DEGREES NORTH, THE COSINE IS .7071068, SO MULTIPLY .7071068 TIMES 1,037.5464, AND THE SPEED OF THE ROTATION IS 733.65611 MILES PER HOUR (1,180.7 KM/H).

FOR OTHER LATITUDES, THE SPEED IS:

10 DEGREES: 1,021.7837 MPH (1,644.4 KM/H)

20 DEGREES: 974.9747 MPH (1,569.1 KM/H)

30 DEGREES: 898.54154 MPH (1,446.1 KM/H)

40 DEGREES: 794.80665 MPH (1,279.1 KM/H)

50 DEGREES: 666.92197 MPH (1,073.3 KM/H)

60 DEGREES: 518.7732 MPH (834.9 KM/H)

70 DEGREES: 354.86177 MPH (571.1 KM/H)

80 DEGREES: 180.16804 MPH (289.95 KM/H)

CYCLICAL SLOWDOWN

EVERYTHING IS CYCLICAL, EVEN THE SPEED OF THE ROTATION OF THE EARTH, WHICH GEOPHYSICISTS CAN MEASURE PRECISELY, IN MILLISECONDS. EARTH'S ROTATION TENDS TO HAVE A FIVE-YEAR SPAN, WHERE IT SLOWS DOWN BEFORE SPEEDING BACK UP AGAIN, AND THE FINAL YEAR OF THE SLOWDOWN CORRELATES WITH AN UPTICK IN EARTHQUAKES AROUND THE WORLD. SCIENTISTS PREDICTED THAT DUE TO BEING THE LAST YEAR IN THIS FIVE-YEAR SLOWING CYCLE, 2018 WOULD BE A BIG YEAR FOR EARTHQUAKES. CORRELATION IS NOT CAUSATION, OF COURSE, BUT GEOLOGISTS ARE ALWAYS LOOKING FOR TOOLS TO TRY AND PREDICT WHEN AN EARTHQUAKE IS COMING.

DOING THE WOBBLE

EARTH'S SPIN HAS A BIT OF A WOBBLE TO IT, AS THE AXIS DRIFTS AT THE POLES. THE SPIN HAS BEEN DRIFTING FASTER THAN NORMAL SINCE 2000, NASA HAS MEASURED, MOVING 7 INCHES (17 CM) PER YEAR TO THE EAST. SCIENTISTS DETERMINED THAT IT CONTINUED EAST INSTEAD OF GOING BACK AND FORTH BECAUSE OF THE COMBINED EFFECTS OF THE MELTING OF GREENLAND AND ANTARCTICA AND A LOSS OF WATER IN EURASIA, THE AXIS DRIFT APPEARS TO BE ESPECIALLY SENSITIVE TO CHANGES HAPPENING AT 45 DEGREES NORTH AND SOUTH. THAT DISCOVERY LED SCIENTISTS TO FINALLY BE ABLE TO ANSWER THE LONG-HELD QUESTION OF WHY THERE WAS DRIFT IN THE FIRST PLACE. HAVING DRY OR WET YEARS IN EURASIA HAS CAUSED THE WOBBLE TO THE EAST OR WEST. HOW FAST DOES THE EARTH TRAVEL WHILE ORBITING THE SUN? IN ADDITION TO THE ROTATIONAL SPEED OF THE EARTH SPINNING ON ITS AXIS, THE PLANET IS ALSO SPEEDING AT ABOUT 66,660 MILES (ABOUT 107,278.87 KM) PER HOUR (107,278.87 KM (ABOUT 66660 MI) / H) IN ITS REVOLUTION AROUND THE SUN ONCE EVERY 365.2425 DAYS (ABOUT 12 MONTHS).

HISTORICAL THOUGHT

IT WAS NOT UNTIL THE 16TH CENTURY BEFORE PEOPLE UNDERSTOOD THAT THE SUN WAS THE CENTER OF OUR SECTION OF THE UNIVERSE AND THAT EARTH MOVED AROUND IT, INSTEAD OF EARTH BEING STATIONARY AND THE CENTER OF OUR SOLAR SYSTEM.

1 CORINTHIANS 11:1

"BE YE FOLLOWERS OF ME, EVEN AS I ALSO AM OF CHRIST".

PROVE ALL THINGS

STUDY TO SHEW THYSELF APPROVED UNTO AHAYAH

ALL PRAISES TO THE MOST HIGH GOD

AHAYAH ASHAR AHAYAH BAHASHHEM YASHAYAH

FRANK CHAVEZ

TRIBE OF ISSACHAR

12 TRIBES 1 NATION FOR ALL

ACTS 17:26

**"AND HATH MADE OF ONE BLOOD ALL NATIONS OF MEN FOR TO
DWELL ON ALL THE FACE OF THE EARTH, AND HATH DETERMINED
THE TIMES BEFORE APPOINTED, AND THE BOUNDS OF THEIR
HABITATION"**

FOR THE KINGDOM OF HEAVEN IS AT HAND