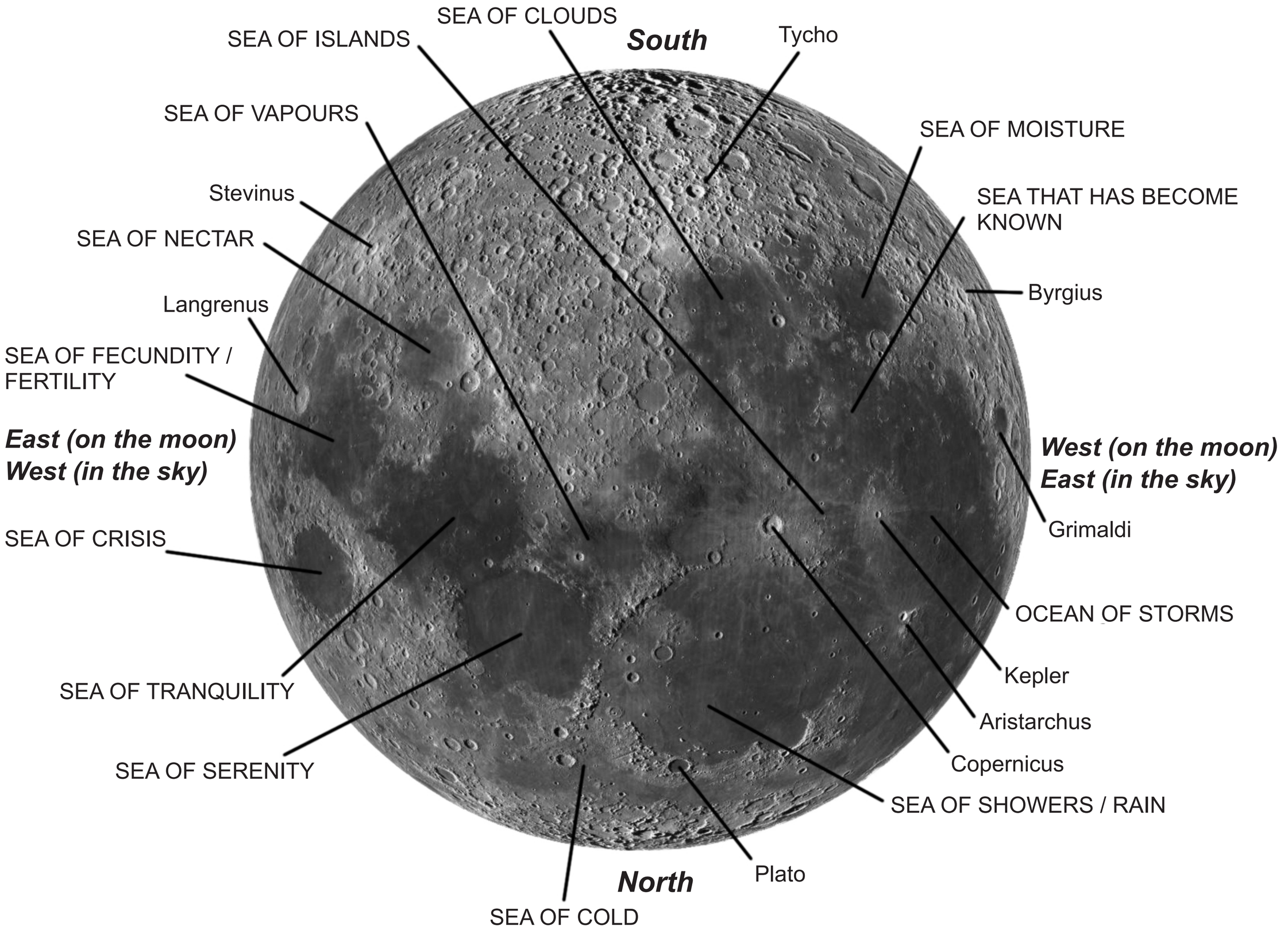
THE EARTH'S MOON

The moon is locked to the Earth through its gravitational attraction. Its orbital (year) and rotational (day) periods are therefore identical to those of the Earth, i.e., 27.3 days, which is why we always see the same side of the moon.

The moon's vital statistics

Average distance from Earth	384 400 km
Distance at perigee	363 300 km
Distance at apogee	406 500 km
Diameter	3 475 km (one-quarter that of the Earth, the fifth largest moon in our solar system)
Mass	1/81th of the Earth's mass
Tilt of lunar axis	1.5° (Earth's tilt is 23.5°)
Time between successive new moons	29.5 days
Daytime temperatures	up to 134°C
Night-time temperatures	as low as -173°C.
Coldest temperature recorded in some deep craters near the poles	-240°C.

Moon as seen from the Southern Hemisphere



English names are purposefully used in the diagram. Any search engine will immediately provide the original Latin.

Structure and composition
The moon's outer crust is 68 km thick and its rocky mantle, which is rich in iron and magnesium, is 1 330 km in depth. The small core of the moon is 680 km in diameter. It represents about 2% of its mass and probably consists mainly of iron.

The light areas on the moon are heavily cratered, very old highlands (called 'terrae') whereas the dark areas are relatively smooth, younger impact craters ('marae'). The marae take up about 16% of the moon's total surface area.

Note the southern hemisphere 'Bunny' on the moon, appearing as if it is in a goldfish bowl:

- *Sea of Fecundity* / *Fertility* and *Sea of Nectar* are its ears
- *Sea of Tranquility* is its head
- *Sea of Crisis* is its front right paw
- *Sea of Serenity* is its chest
- *Sea of Showers* / *Rain* is its buttocks
- *Ocean of Storms* is its tail, and
- *Sea of Clouds* and *Sea of Moisture* are its hind paws

Once seen, this image is never forgotten.

There are about 300 000 craters wider than 1 km on the moon's near side alone.

The largest known crater in the solar system is on the moon. It is located near the south pole on the far side and is about 2 240 km in diameter and 13 km deep, which is the lowest point on the lunar surface.

The moon is drifting away from the Earth at a rate of about 3.8 cm per year. Imagine how high the tides would have been when it was still only a few thousand kilometres away from Earth and its gravitational effects were much larger!

The gravitational effect of the moon is imperceptibly, but measurably, slowing the Earth's rotation, increasing the length of an Earth Day by 2.3 milliseconds per century.