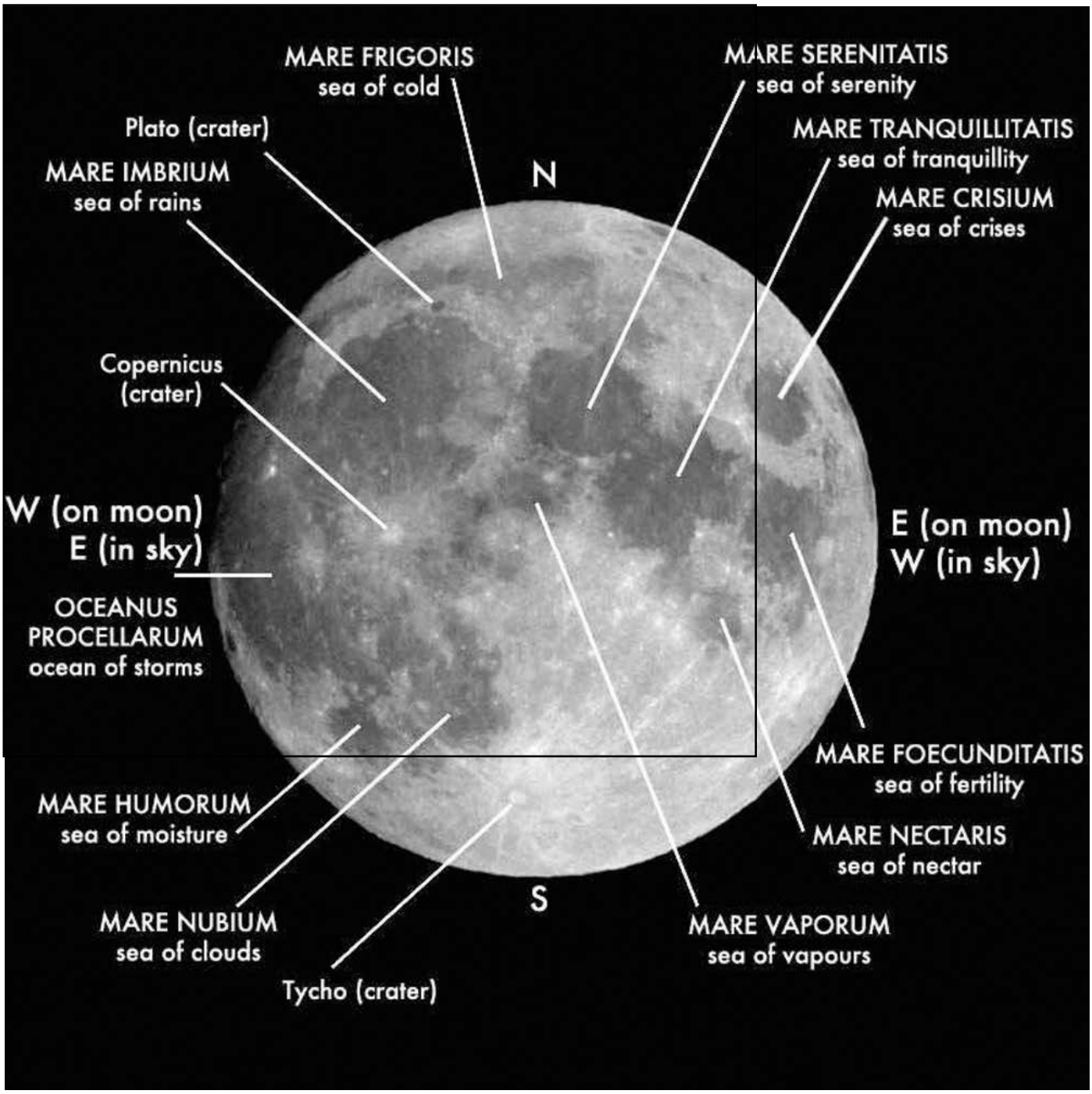

MARE FRIGORIS
sea of cold
MARE SERENITATIS
sea of serenity
Plato (crater)
MARE TRANQUILLITATIS
sea of tranquillity
MARE IMBRIUM
sea of rains
N
MARE CRISIUM
sea of crises
Copernicus
(crater)
W (on moon)
E (in sky)
E (on moon)
W (in sky)
OCEANUS
PROCELLARUM
ocean of storms
MARE FOECUNDITATIS
sea of fertility
MARE HUMORUM
sea of moisture
MARE NECTARIS
sea of nectar
S
MARE NUBIUM
sea of clouds
MARE VAPORUM
sea of vapours
Tycho (crater)

SKYWATCHER'S GUIDE TO THE MOON

Impact!

The Moon's cratered surface tells a violent story. Bright areas are ancient crust that make up the highlands. Dark areas are newer regions of lava that formed after asteroid impacts.

Copernicus

This crater (left) is easy to spot. It formed about 800 million years ago, and is 57 miles (92 km) wide. Note central peaks and terraced walls, caused by impact.

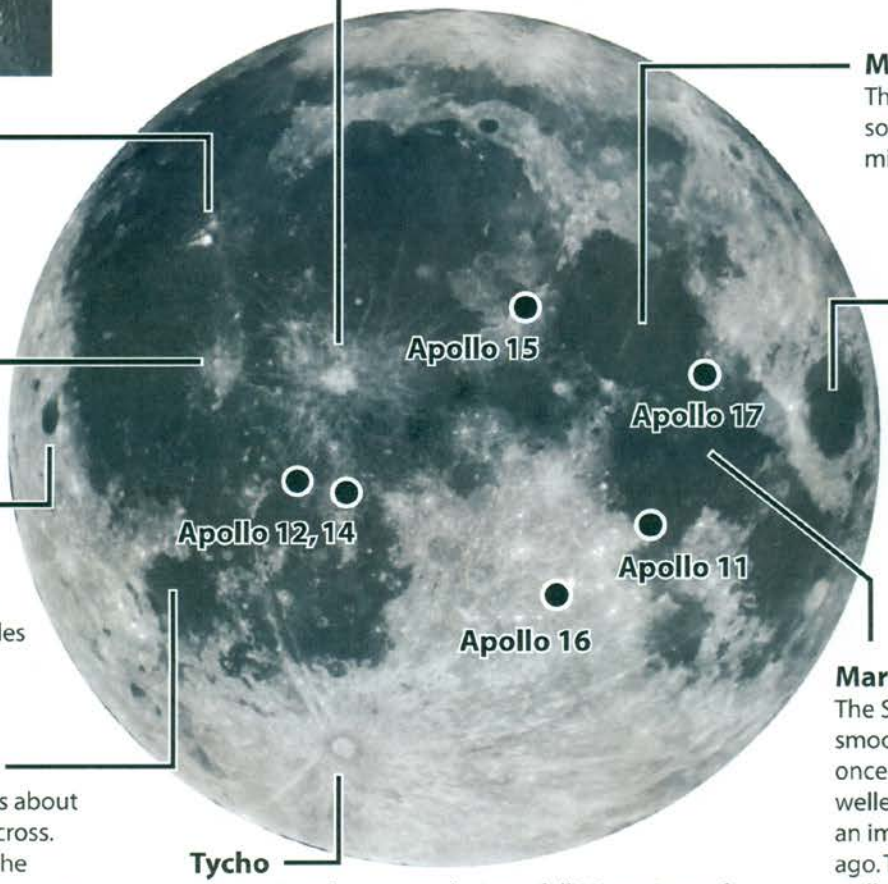
What do you see on the Moon?

Face south and look up in the sky.

Can you find the Moon?

Compare the Moon in the sky to the large Moon map below. The Moon map shows the side of the Moon that is always facing us. How much of the Moon in the sky is lit up right now? You will only see the features on the part of the Moon that is lit up.

Through a telescope, you may need to turn the map to match your view of the Moon in the eyepiece. Some telescopes will flip the image, so the Moon might look like the image to the right through a telescope.



Aristarchus
Young crater. So bright that Sir William Herschel thought it was an active volcano.

Kepler
Small version of Copernicus

Grimaldi
Lava-filled crater is one of the darkest spots you can see on the Moon. It's 145 miles wide (233 km).

Mare Humorum
The Sea of Moisture is about 220 miles (350 km) across. You can spot it with the naked eye. With a telescope, you might notice two craters along its edge.

Tycho
Young crater best seen during a full Moon. Rays of bright material are ejecta blasted out of the crust when a large asteroid struck about 109 million years ago.

Mare Serenitatis
The Sea of Serenity is solid lava, some 380 miles (610 km) across.

Mare Crisium
The Sea of Crisis is about 340 miles wide (550 km) and visible to the naked eye.

Mare Tranquillitatis
The Sea of Tranquility is a smooth plain filled with once-molten lava that welled up from below after an impact billions of years ago. The first humans to walk on the Moon, Apollo 11 astronauts, landed near the edge.

SOURCES: NASA; ADVANCED SKYWATCHING; CAMBRIDGE ATLAS OF ASTRONOMY; DK VISUAL ENCYCLOPEDIA

Photos: James Scala. Layout and text for Moon map used with permission: Robert Roy Britt/SPACE.com.

NASA Night Sky Network (nightsky.jpl.nasa.gov) administered by Astronomical Society of the Pacific (www.astrosociety.org)

LUNAR LANDING SITE CHART