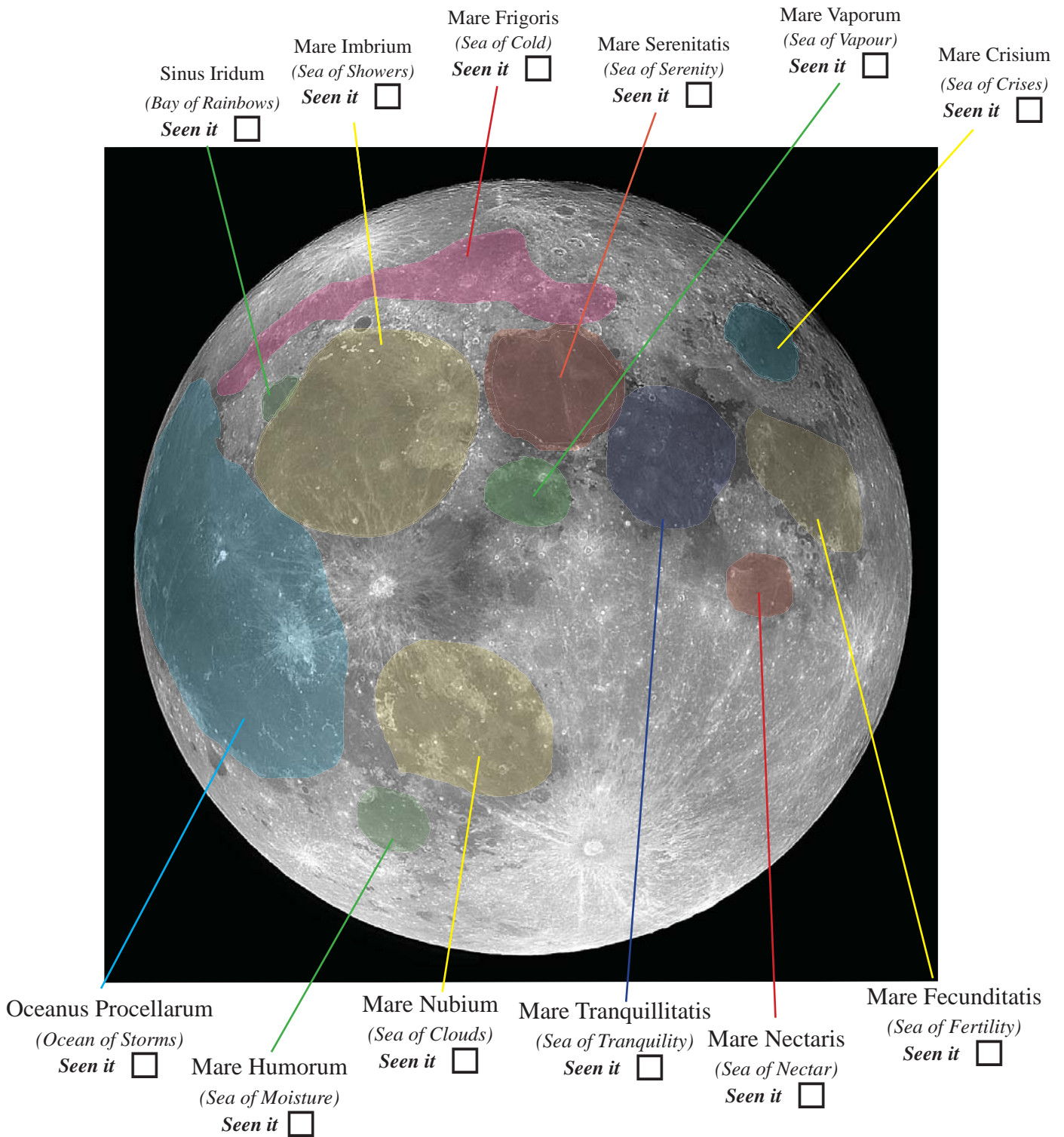




# Section 1: The Lunar Seas



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**Visibility:** Most features can be seen with the naked eye, but use binoculars if you're struggling.

**When:** Most of them are best seen when the Moon's phase is full or close to full.

Despite their name, the lunar seas are plains of solidified lava which appear dark on the Moon's disc. Many are large enough to spot with just your eyes, so see how many you can locate for our first challenge sheet.

**Mare Imbrium** (*Sea of Showers*) is a huge, round circular sea, 760 miles in diameter. The smaller **Mare Serenitatis** (*Sea of Serenity*, 400 miles across) can be seen immediately to the east of Mare Imbrium. Directions on the Moon's surface are the same as you'd see on a normal map; with north up, south is down, west is to the left and east off to the right.

Roughly the same size as Mare Serenitatis, and lying southeast of it, is the **Mare Tranquillitatis** (*Sea of Tranquility*). This is the sea where Neil Armstrong performed his giant leap for mankind as he made the first ever human footprint on the lunar surface. Apollo 11's *Tranquility Base* is located close to the southern shore of the sea.

The large and rather indistinct region to the east of Mare Tranquillitatis is the **Mare Fecunditatis** (*Sea of Fertility*). Despite being similar in size to Tranquillitatis, this is a bit harder to make out.

Most of the lunar seas are joined together. However, the next one is an exception. **Mare Crisium** (*Sea of Crises*) is an isolated oval sea, roughly 350 miles across. It's fairly easy to pick out to the northeast of Mare Tranquillitatis.

If your eyes have managed to pick out Mare Crisium, try for the more difficult **Mare Nectaris** (*Sea of Nectar*) which lies to the south of the join between Tranquillitatis and Fecunditatis. This can be tricky as its lighter floor doesn't stand out so well against the brighter, surrounding highland areas.

While we're in tricky territory, the **Mare Nubium** (*Sea of Clouds*) can be a bit of a challenge for your eyes. Despite being large, it lacks any really distinct edges. **Mare Humor** (*Sea of Moisture*) lies to the south of this region and despite being relatively small at 230 miles across stands out much better than 450 mile wide Nubium.

Close to the centre of the Moon's disc is the **Mare Vaporum** (*Sea of Vapour*) which lies immediately south of Mare Serenitatis. Although just 140 miles across, its proximity to Serenitatis makes it appear like a 'blob' of dark hanging below the larger sea.

The region towards the western edge of the Moon is dominated by the largest of the lunar seas; **Oceanus Procellarum** (*Ocean of Storms*). This is a massive region measuring approximately 1000 miles by 480 miles. Consequently, it's not too hard to spot as long as the phase is close to full, or in the waning part of the cycle (morning Moon).

The most northern sea is aptly called **Mare Frigoris** (*Sea of Cold*) and runs from the very northern edge of Oceanus Procellarum along the top of Mare Imbrium before finally making contact with the northern border of Mare Serenitatis. Unlike the other more rounded seas, Mare Frigoris appears long and thin.

My final pick is rather small but also quite distinctive. In fact it doesn't merit ocean or sea status but rather is known as a bay (*sinus*). This is the **Sinus Iridum** (*Bay of Rainbows*) and is located off the northwestern edge of Mare Imbrium. It is just about possible to pick this out with the naked eye when the terminator (line between light and shadow) is close by.