



Down into the deep

Background reading for teachers

This reading gives you the background for each slide, with sources you can check.

The zones

Scientists divide the ocean into zones by depth and light: the sunlight zone (to about 200 m), twilight zone (200 to 1,000 m), midnight zone (1,000 to 4,000 m), abyss (4,000 to 6,000 m) and the trenches (below 6,000 m). Pressure increases by about one atmosphere for every 10 m of depth.

The Philippine Trench

The Emden Deep in the Philippine Trench is 10,540 m deep, the third-deepest known point on Earth. In March 2021, Dr Deo Florence Onda of the UP Marine Science Institute became the first Filipino to reach it, diving with the explorer Victor Vescovo.¹ The expedition reported rubbish on the seafloor.

Mapping

As of April 2026, 28.7% of the world's ocean floor had been mapped to modern standards, according to the Nippon Foundation-GEBCO Seabed 2030 Project.²

Sources

1. University of the Philippines (2021). 1st Filipino to reach Emden Deep, 3rd deepest spot on Earth. upd.edu.ph
2. Seabed 2030 (2026). Global seabed mapping reaches new milestone. seabed2030.org

Free to use and share for education. Made by Marine Conservation Philippines. More free lessons: marineconservationphilippines.org/resources/teachers-resources/ Updated September 2026.