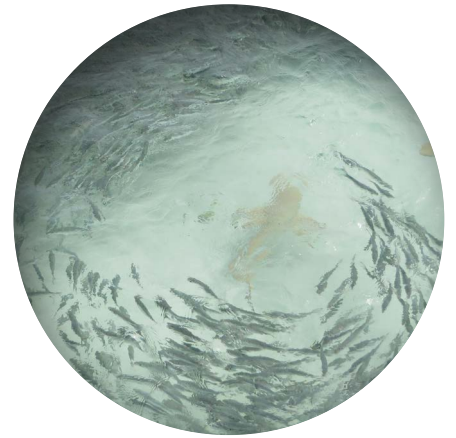


# Marine ecosystems



## Coral reefs



### Location:

They are found in over 100 countries around the world. The majority are found between the Tropic of Cancer and Tropic of Capricorn.

### Characteristics:

They grow in temperate waters from 23-29°C, they prefer salty and clear water.

### Facts:

Coral reefs are found in less than 1% of the ocean yet are home to 25% of all marine life on the planet.

### Mangroves



#### Location:

They grow at tropical and subtropical latitudes near the equator. They are found in the intertidal zone of the coastline, where the ocean meets the land.

#### Characteristics:

Mangroves grow in areas with low-oxygen soil, where slow moving salt-water allows fine sediments to accumulate.

#### Facts:

They stabilize the coastline, reducing erosion from storm surges, currents, waves and tides. There are 70 species of mangroves.

### Kelp forests



#### Location:

They are found in cool, nutrient rich, relatively shallow waters close to the coast. They are rarely found deeper than 40 meters.

#### Characteristics:

Kelp are a type of algae which provide food and shelter for many organisms such as fish, invertebrates and marine mammals.

#### Facts:

They can grow 30-60cm per day.

### Physical features

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#### Open ocean

More than 50% of the earth's surface is covered by ocean which is at least 2 miles deep (3.2km).

#### Deep ocean

The area of ocean located below 200 meters, where there is little light and close to freezing temperatures. Deep ocean makes up to 95% of the worlds living space, only 5% is mapped with a high resolution.

#### Mariana Trench

The world's deepest point at 10,994m deep. Located in the western Pacific, east of the Philippines approximately 124 miles east of the Mariana Islands. The trench measures 1,580 miles long and is on average 43 miles wide.

#### Mid-Atlantic Ridge

An underwater mountain range in the Atlantic Ocean that runs from 87°N to 54°S. It is on average only 3km above the ocean floor, and ranges from 1000km to 1600km wide. It was created by tectonic plates moving away from each other. The North America plate and the Eurasian plate continue to move apart, causing the Mid-Atlantic Ridge to continue to grow at a rate of 2.5cm per year.

### Facts about the ocean

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- The ocean is estimated to cover 14 million square miles, combined with the depth, the ocean covers 1.35 billion cubic kilometres.
- The average depth of the ocean is 720m.
- Connected ocean ridges can measure up to 40,000 miles long. They weave through all major oceans and are the single largest feature on Earth. They are the result of the earths tectonic plates moving apart.
- The worlds highest mountain is Mauna Kea at a height of 10,203m (33,500 feet) it is larger than Mount Everest which is 8,850m (29,035 feet) but only 4205m (13,796 feet) of Mauna Kea is visible above sea level.

