# Exmouth Community College

## 1. Our oceans cover more than 70 per cent of the Earth's surface.

With so much of the Earth's surface taken up by ocean, it is evident how vital these marine environments are to the planet, and how much there still is to be explored.

## 2. The majority of life on Earth is aquatic.

As so much of the Earth's surface is underwater, it comes as no surprise that marine species outnumber those on land. But, it's an incredible 94 per cent of the Earth's living species that exist within the oceans.

# 3. Less than five per cent of the planet's oceans have been explored.

According to the Ocean Service, man has explored less than five per cent of Earth's oceans. As researchers strive to discover more, we're continually getting to know our oceans better.

## 4. The world's longest mountain chain is underwater.

Earth's longest chain of mountains, the Mid-Ocean Ridge, is almost entirely beneath the ocean, stretching across a distance of 65,000 kilometres. It's said that this mountain chain is less explored than the surface of Venus or Mars.

# 5. There are more historic artefacts under the sea than in all of the world's museums.

Around 1,000 shipwrecks lie off the Florida Keys alone, some of which are within the Florida Keys National Marine Sanctuary. Other underwater museums have been created in recent years, including the Mediterranean's submerged bronze statue, Christ of the Abyss.

# 6. We still only know a fraction of the marine species in our oceans.

According to the World Register of Marine Species there are now 240,470 accepted species, but this is believed to be just a small proportion of the species that exist, with new marine life being discovered everyday.

# 7. Over 70 per cent of our planet's oxygen is produced by the ocean.

It's thought that between 70 and 80 per cent of the oxygen we breathe is produced by marine plants, nearly all of which are marine algae.

**8.** The Pacific Ocean is the world's largest ocean and contains around **25,000** islands. With 25,000 islands lying within it, the Pacific Ocean has more islands than anywhere else on the planet.





Source: <a href="https://oceanservice.noaa.gov/facts/why-care-about-ocean.html">https://oceanservice.noaa.gov/facts/why-care-about-ocean.html</a>

### Exmouth Community College Academy Trust



#### The World's Oceans are very important

#### Pacific Ocean

This is the biggest ocean on Earth and covers more than 30% of the earth's surface. This size of this ocean is bigger than the total size of the landmass aof all the continents together. It's northern edge is surrounded by the ring of fire – an area containing 75% of the world's active volcanoes.

#### Atlantic Ocean

This is the world's second largest ocean and covers 25% of the Earth's surface – around 6.5 times the size of the USA. This ocean has very important trade routes between Europe and the USA.

#### Indian Ocean

This is the third largest ocean, making up around 20% of the Earth's surface. This ocean connects the oil-rich countries of the Middle East with Asia. Many countries on the shores of this ocean are popular with tourists.

#### Southern Ocean

This is the fourth largest ocean, making up around 6% of the Earth's surface. It is also know at the Antarctic Ocean, South Polar or Austral Ocean. Icebergs will be encountered in this ocean during any season, but from May to October there are also strong winds which make crossing the ocean even more dangerous. This ocean is home to the Emperor penguins and wandering albatrosses, blue whales and fur seals. Every spring over 100 million birds nest on the rock shores of Antarctica.

### Artic Ocean

This is the smallest ocean, covering around 3% of the Earth's surface. Much of the ocean is covered with ice, however the thickness of the ice varies depending on the season. Due to global warming, large parts of this ocean now melt in the spring and summer and refreeze during the winter. The ocean is home to whales, walruses, polar bears and seals.

## Causes of Pollution

- 8 million tonnes of plastic are dumped into the oceans every year. Cigaretter butts, plastic bags, fishing gear and food and drink containers are the most common forms of plastic pollution found in the oceans.
- Plastic does not disappear in the ocean, sometimes it breaks down into tiny fragments and is eaten by fish. This may start low down the food chain e.g. plankton eat tiny pieces of plastic, shrimp eat plankton, larger fish eat shrimp - by the time humans eat the fish there can be high levels of plastic. Larger pices of plastic may choke, strangle or suffocate marine life.
- Transportation of oil by ships and pipes along with associated accidents are responsible for 12% of oil pollution at sea. Oil may seep from cracks in pipes deep below the ocean surface.
- Land-base activities are the major source of oil pollution, and account for 37% of it. This occurs when oil is used to make energy, or as fuels in vehicles. Leaks from cars and during repairs all ultimately end up in the ocean. Even when you pour oil down the sink in your home, it can end up causing ocean pollution.
- Many ships dumps their rubbish while out at sea. Though ocean liners make up only 1% of the ships, they produces 25% of the waste from ships. This is domestic, cooking, operational and sewage waste. Cruise ships dump a considerable amount of sewage into the ocean. It is estimated that 95,000 cubic metres of sewage from toilets and 5,420,000 cubic metres of sewage from sinks, galleys and showers are released into the oceans each day.

## Impacts of Pollution

TOP TO ITEMS COLLECTED

Cigarette Butts Grocery Bags (Plastic) 441,493

- Plastic is the most common element that is found in the ocean. It is harmful for the environment as it does not break down easily and is often considered food by marine animals
- Over 1 million seabirds are killed by ocean pollution each year
- 300,000 dolphins and porpoises die each year as a result of becoming entangled in discarded fishing nets, among other items
- 100,000 sea mammals are killed int eh ocean by pollution each year
- There is an island of rubbish, twice the size of the state of Texas, inside the Pacific Ocean: the North Pacific Gyre, off the coast of California is the largest oceanic rubbish site in the entire world. There the number of floating plastic pieces outnumbers total marine life 6-to-1 in the immedicate vicinity!













BBC - Plastics Watch - War on Plastic

## **Responses to Marine Pollution** can be:

- Individual one person at a
- Group groups in local areas
- National usually put in place by Governments
- Global many Governments or large groups can work together

All are needed to tackle this problem.

