

Worksheet 8. Oceans: a vast, still unknown world (grades 3-4)



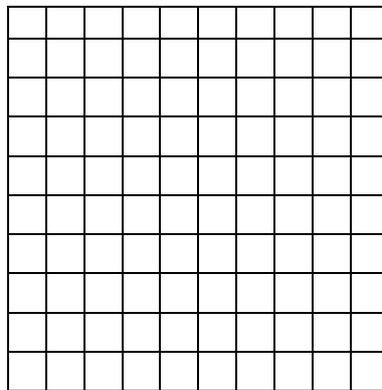
Oceans cover more than 70% of the Earth's surface. The Pacific Ocean alone covers 1/3 of our planet. Because of its depth, oceans have 300 times more habitable space than land.

Oceans are a major resource, not only for fishing and climate regulation, but also for the air we breathe: the tiny plants suspended in water (phytoplankton) provide approximately 80% of the air's oxygen, or four times more than land-based vegetation.

From tiny beings (bacteria, plankton, etc.) to large cetaceans (like the blue whale, which can measure up to 30 metres/98 feet long), the ocean is home to a variety of living creatures who reside in equally-varied habitats: from coral reefs to ocean trenches.

Scientists have indexed nearly 230,000 ocean-based species, but they think that the number of marine species might be as high as one million. As of today, it is estimated that only the equivalent of 5% of the surface of the ocean has been studied. Ocean exploration is thus incredibly important for science, on the same level as space exploration.

- 1) The following 100 squares represent 100% of the Earth's surface. How many squares do you think you would need to colour in order to represent the 70% of the Earth's surface covered by the ocean? Colour them in using light blue, then use dark blue to go back over the squares which represent the surface of the Pacific Ocean (by itself), using the text as a guide. Finally, draw black lines in three of the blue squares (any blue squares): this is approximately how much we know about oceans!



- 2) According to scientific estimations, how many ocean species are still undiscovered?
- 3) The Amazon Forest is often named the "lung of the Earth". After reading this text, what do you think of that title?