

What is ocean water made of?

Ocean water, like everything in the universe, is made of atoms. The atoms often join together to make molecules. The complete list of all types of atoms is the Periodic Table of the Elements. (An element is a type of atom.)

SALT WATER FACTS:

In every gallon of ocean water, there are about ____ teaspoons of salt. This means that ocean water is about ____ % salt.

Ocean salt is made of these two elements: _____ and _____

The saltiest closed sea is the _____ Sea.

The saltiest open sea is the _____ Sea.

The least salty sea is the _____ Sea.

The Periodic Table of the Elements

Legend:

- atomic number
- atomic weight
- chemical symbol
- electron configuration
- group number
- period number
- oxidation states
- block
- metal
- metalloid
- nonmetal
- solid
- liquid
- gas
- radioactive
- synthetic

Every element on the Periodic Table can be found in ocean water, even gold and uranium!

About 3.5% is: _____

A tiny fraction is dissolved gases such as:

- 1) _____
- 2) _____
- 3) _____

MINERAL FACTS:

These are the top 10 minerals taken out of ocean water by marine plants and animals:

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____
- 8) _____
- 9) _____
- 10) _____

96.5% of ocean water is this molecule: _____

This means that these two elements are the most abundant elements in ocean water: _____ and _____

FREEZING FACTS:

Fresh water freezes at this temperature: ____F (____C)

Ocean water freezes at this temperature: ____F (____C)

My favorite marine fish:

MARINE means "ocean"

My favorite marine mammal:

My favorite marine bird:

OCEAN WATER WORKSHEET

The students should use books or websites to find the information they need to fill in the blanks.

For your convenience, here are the answers that I found.

Salt Water Facts:

5 teaspoons of salt per gallon of ocean water.

Ocean is 3.5% salt. (On average, as the figure will be slightly higher or lower for some seas.)

Saltiest closed sea is the Dead Sea.

Saltiest open sea (connected to an ocean) is the Red Sea.

Least salty sea is the Baltic Sea.

Mineral Facts:

1) Magnesium (Mg)

2) Iron (Fe)

3) Calcium (Ca)

4) Potassium (K)

5) Sulfur (S)

6) Phosphorus (P)

7) Silicon (S)

8) Carbon (C)

9) Sodium (Na)

10) Chlorine (Cl)

Dissolved gases: Oxygen, carbon dioxide, nitrogen

Inside water droplet:

3.5% is salt.

95.5% is H₂O.

Draw an H₂O molecule in the large blank space.

Most abundant elements in ocean water are hydrogen and oxygen.

Freezing facts:

Fresh water freezes at 32 degrees F, or 0 degrees C.

Salt water freezes at 28 degrees F, or -2 degrees C.

Students fill in their favorite marine animals in the small circles.

The main point is that they understand that the word "marine" refers to the ocean.