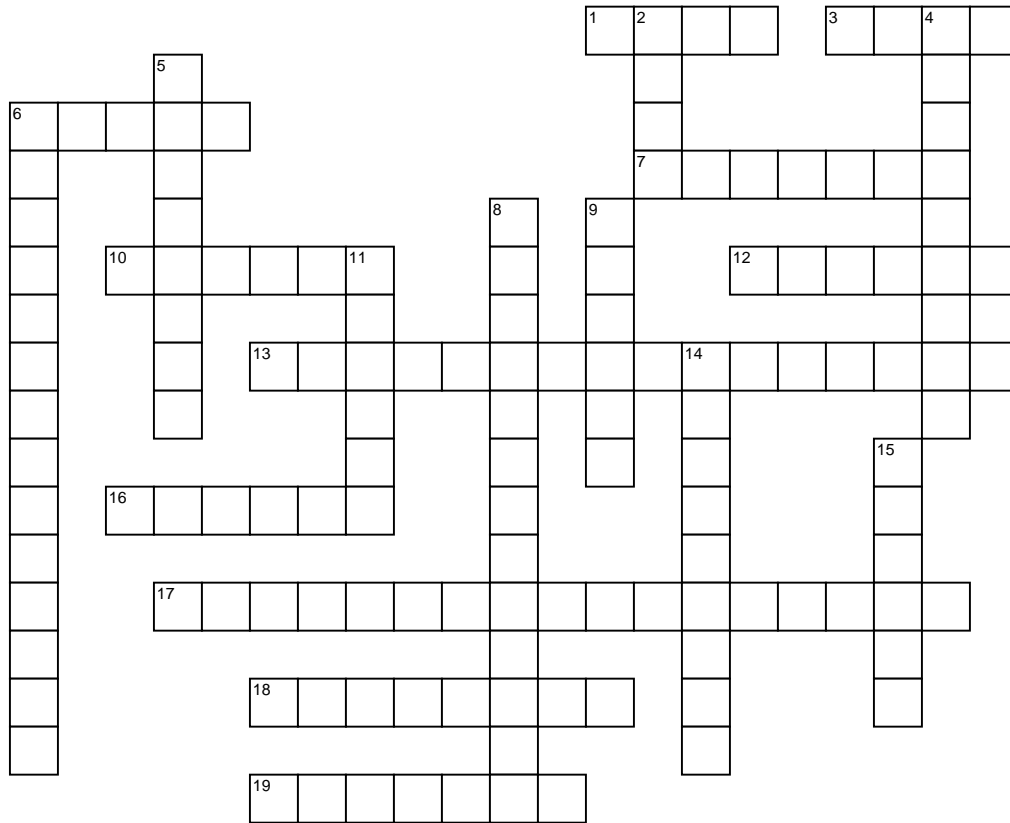


The Chemistry of Seawater  
Ocean Book  
Pgs. 34-35

1. Sea salt is not a single substance but a mixture of charged particles called \_\_\_\_\_.
2. Why do our oceans contain so many dissolved substances?
3. The ions in seawater can be 1 of 2 electrical charges...name them.
4. What are the 2 most common ions in seawater?
5. Which common household kitchen item also contains the 2 ions mentioned above?
6. Sodium chloride makes up \_\_\_\_\_ % by mass of salt in the sea.
7. Name the next 4 most common ions in seawater after sodium chloride:
  - 1.
  - 2.
  - 3.
  - 4.
8. Name 3 sources for ions in seawater
  - 1.
  - 2.
  - 3.
  - 4.
9. Describe the term "sink" in reference to seawater ions.
10. What are the 3 main gases dissolved in seawater?
11. What are 2 reasons that oxygen levels are higher near the surface?
12. Where are Carbon Dioxide levels the highest?...the lowest?
13. Why are CO<sub>2</sub> levels lower at the surface?
14. What compound do many marine organisms use to make their shells?
15. What is at the base of the oceanic food web?
16. How do phytoplankton obtain energy?
17. Name 3 nutrients that phytoplankton need to grow.
18. What is a "bloom"?
19. \_\_\_\_\_ of seawater from the ocean floor recharges the surface waters with vital substances.
20. What are the cell walls of siliceous diatoms made of?

# Chemistry of Sea Water

## From the Ocean Book



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### ACROSS

- 1 a process that removes the dissolved salts from the ocean
- 3 true or false the proportions of sea salt in the Pacific are the same as the Atlantic
- 6 one way salt leaves the ocean is when waves crash against the land and \_\_\_ water into the air
- 7 generally where is the highest concentration of oxygen
- 10 Carbon dioxide concentrations are highest at \_\_\_
- 12 one carbon sink are the \_\_\_ marine organisms make to protect themselves
- 13 one source of salts for the oceans
- 16 type of plankton that needs silica in order to grow
- 17 one source of oxygen for the oceans are \_\_\_ who are able to make it.
- 18 a substance phytoplankton need in order to survive
- 19 water is an excellent \_\_\_ which allows many things to be dissolved in it.

### DOWN

- 2 sea salts are a mixed of charged particles which are called \_\_\_
- 4 how do plant nutrients get from the ocean floor to the surface
- 5 these produce a lot of carbon dioxide when they decompose organic matter
- 6 the most abundant dissolved salt
- 8 the base of the ocean food chain
- 9 how are most of the salts from land transported to the oceans?
- 11 what ion of table salt has a positive charge
- 14 2nd most abundant dissolved salt (according to the diagram)
- 15 Is river discharge a source or a sink of salts?