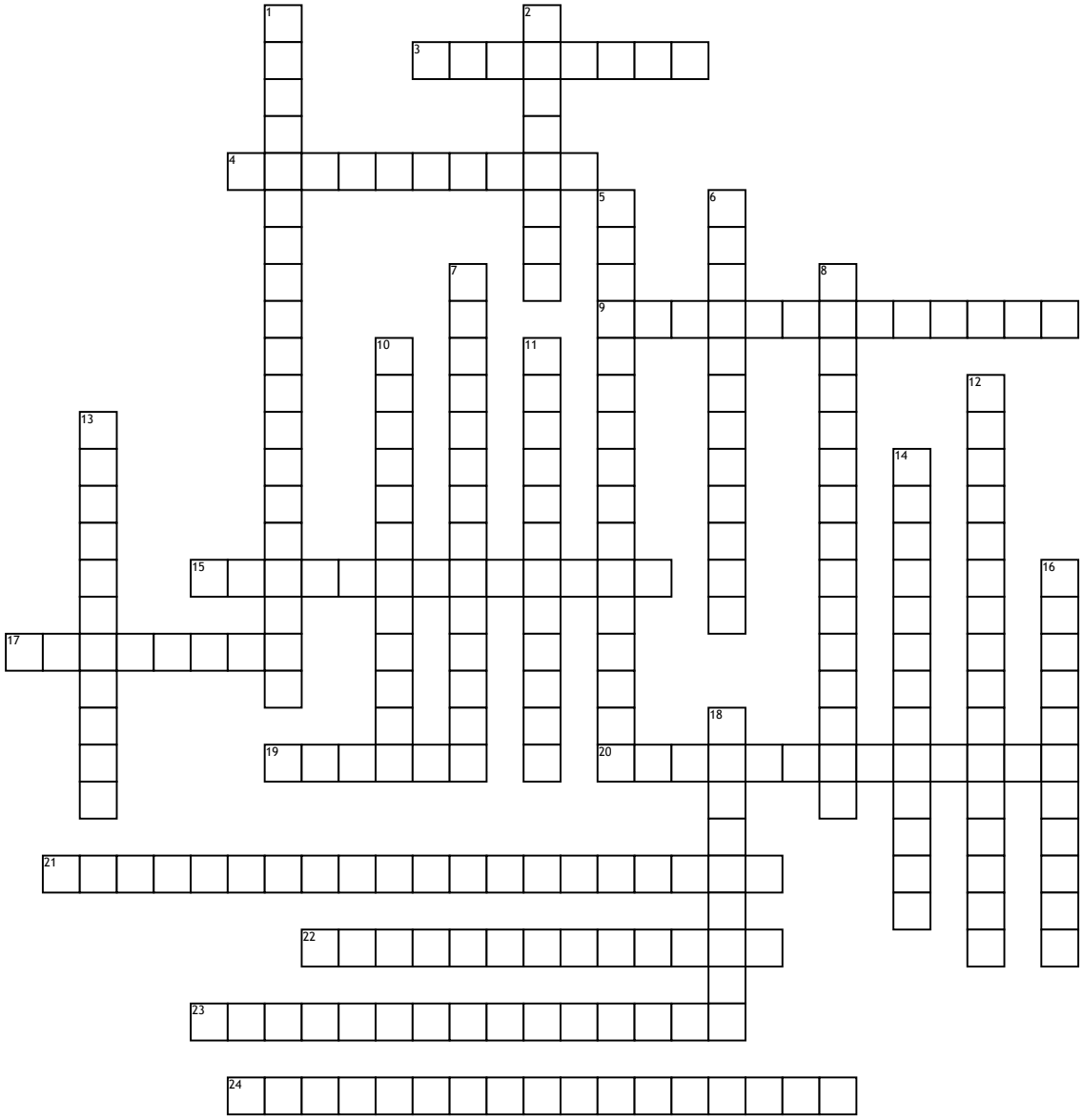
Name: _____ Date: _____

Ocean Acidification



Across

3. a measure of the concentration of hydrogen ions using a logarithmic scale.

4. are organisms with shells/skeletons made from calcium carbonate

9. helps make calcium carbonate shells and skeletons.

15. provide some clues as to how marine ecosystems might respond to the expected changes in ocean chemistry.

17. a mixture of tiny free-floating plants and animals that live and grow in sunlit surface waters and serve as the foundation of the marine food chain.

19. play a critical role in ecosystems.

20. will begin to become corrosive to some types of carbonate structure by the year 2050.

21. is famous for the demise of the dinosaurs and roughly 6% of all species on Earth disappeared as a result of this cataclysm.

22. a major neurotransmitter in the vertebrate brains.

23. is the exchange of carbon dioxide rapidly between plants and animals through respiration and photosynthesis.

24. is largely a giant block of calcium carbonate and calcium sulfate, formed by the reminants of of ancient marione organisms.

Down

1. a young researcher who developed the 1st instrument for accurately measuring atmospheric carbon dioxide levels.

2. grows more rapidly under elevated carbon dioxide conditons.

5. HCO 3

6. H2 CO3

7. is when organic carbon becomes stored deep within the Earths crust and forms fossil fuels.

8. the pressure that carbon dioxide gas exerts if it were alone in the container instead of being a component of the mixture of gases in the atmosphere or ocean.

10. need carbonate ions to build their shells.

11. director of the Scripps Institution of Oceanography.

12. is the largest biological structure in the world.

13. protect and support some of the most productive fisheries in the world.

14. is a natural part of Earths atmosphere.

16. maintains a natural balance of carbon in the atmosphere, land, and ocean.

18. have delicate calcium carbonate shells that are vulnerable to ocean acidification