

Name:

Ocean Teens

Water Chemistry Worksheet



1. Properties of Water: Draw and label a water molecule:

2. Describe some of the physical properties of water:

- a. _____
- b. _____
- c. _____
- d. _____

3. Describe how the temperature of sea water influences and shapes the lives of organisms in different areas:

4. How about the salinity of the water?

5. Does the fresh water trapped in the Antarctic ice have any influence on the surrounding oceans?

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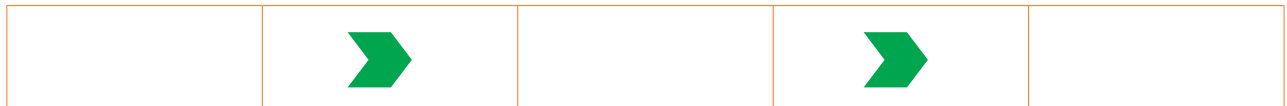
Water Chemistry Worksheet

Nitrogen Cycle

6. Outline the main sources of nitrogen and ammonia in a display such as the Oceanarium Tunnel:

7. Describe the impact that ammonia and nitrates can have on species such as fish:

8. Label each stage of the nitrification process:



Back of House

9. Being a closed system, filtration plays an important role in water quality and chemistry at Sea Life Kelly Tarlton's. Describe the role and natural equivalent of the following:

Filtration Method	Removes	Natural Equivalent
Physical Filtration:		
Chemical Filtration:		
Biological Filtration:		

10. Why is water quality testing such an important task to complete in an aquarium?

11. Ideally, how regularly should water testing be carried out?

12. Why is it important to record results?

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Temperature and Oxygen Test

13. Why do we measure these parameters?

14. What is the desirable range/result?

15. How would you correct an undesirable result?

16. **pH** – provide a definition of this:

17. An important aspect of water quality is pH and acids and bases. Place the following substances along the pH scale where you estimate their pH is:

1. _____

7. _____

14. _____

- Rainwater
- Sea water
- Human blood
- Ammonia
- Pure water
- Urine
- Vinegar

18. Given the acidity of vinegar, why is it considered an effective first aid treatment for box jelly stings?

19. Describe how some marine animals can utilise pH in their own bodies:

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Ammonia

20. Why do we test ammonia levels?

21. What is the desirable range/result:

22. How would you correct an undesirable result?

Nitrate

23. Why do we test Nitrate levels?

24. What is the desirable range/result:

25. How would you correct an undesirable result?

pH

26. Why do we test pH levels?

27. What is the desirable range/result:

28. How would you correct an undesirable result?

29. Knowing that pH is determined by CO₂/carbonate levels, how might marine systems be altered by an increase in levels of atmospheric CO₂?
