



OPEN WATER SCUBA DIVER WORKSHEET

Name _____ Class _____ Date _____

1. YMCA SCUBA was the first national certifying agency, beginning in _____. NAUI (National Association of Underwater Instructors) was second, beginning in _____.
2. The most important factors in choosing dive gear are _____ and _____.
3. Swim goggles can not be used for skin or SCUBA diving because the air space can not be _____.
4. Divers carry a _____ to breathe at the surface, conserving air and neck muscles.
5. A dive knife or tool is used primarily to cut _____ underwater.
6. Rinse all equipment in _____ water after use.
7. SCUBA cylinders must be *hydrostaticly retested* every _____ years and *visually inspected* _____.
8. SCUBA tanks should be stored with some (300-500psi) air in them to prevent them from _____.
9. SCUBA cylinders must never be filled with NITROX or pure oxygen because of the danger of _____.
10. To break down a SCUBA rig, you first close the _____, then purge pressure from the _____, and finally loosen the _____.
11. A descending diver will become heavier as increasing pressure compresses tiny air bubbles in wet suit neoprene. Air is added to the _____ at depth to compensate for this loss of buoyancy.
12. One cubic foot of *seawater* weighs _____ pounds. One cubic foot of *fresh water* weighs _____ pounds.

13. Pressure changes one atmosphere for every _____' of depth in seawater (_____ in fresh water).
14. Using the same equipment, a diver neutrally buoyant in _____ will need to *remove* some weight when diving in _____.
15. An interface between layers of water of significantly different temperatures (most often found in lakes) is a _____.
16. Objects underwater will appear _____ and _____ than they actually are.
17. Underwater, a diver can not tell the direction of sound, due to _____.
18. _____ generates waves. An offshore reef or sandbar will cause waves to break, reform, roll in and then break again.
19. The type and amount of _____ in the water primarily determine underwater visibility.
20. When diving in water below 80 degrees thermal protection is recommended. Proper exposure protection is required to avoid _____.
21. An entangled diver should stop, breath, think, and then _____.
22. The greatest rate of pressure change occurs _____.
23. Thumb up means _____, NOT A-OK.
24. A clenched fist, against the chest, means _____.
25. Drawing the hand, flat palm down across the throat, means _____.
26. When diving in current, divers should always begin the dive swimming _____ the current.
27. Before entering the water, divers should always know _____.
28. A beach entry through surf should be made with a fully _____ BCD, by walking out backward until waist deep, then turning and swimming beneath the waves.
29. _____ can be dangerous to Breath-Hold Divers due to the danger of *Shallow Water Blackout*.
30. If pain is felt in the ears while descending, the diver should _____.
31. _____ in _____ transport oxygen throughout the body.

32. In performing *rescue breathing (pulmonary resuscitation)* it is most important to begin _____.
33. _____ is used when both breathing and pulse have ceased.
34. Diving overweighted (carrying too much weight) is one cause of _____.
35. *Air* is composed of approximately ____ % Nitrogen and ____% Oxygen.
36. *Squeezes* may occur in _____ in and around the body.
37. An *ear drum (tympanic membrane)* rupture may occur if pressure is not equalized between the _____ and _____ ear.
38. _____ are tiny, grape-like, air sacks in the lungs.
39. _____'s *Law* deals with the pressure and volume inverse relationship.
40. *Charles' Law* deals with _____.
41. *Henry's Law* deals with _____.
42. *Dalton's Law* deals with _____.
43. *Barotrauma* is any _____.
44. _____ can cause *Arterial Gas Embolism, Pneumothorax* or *Subcutaneous Emphysema*.
45. The best First Aid for any *Barotrauma* is to administer _____.
46. To relieve *Nitrogen Narcosis* (rapture of the deep) simply _____.
47. *Decompression Sickness (DCS)*, or the *Bends*, is caused by the formation of ___ in the blood and tissues due to too rapid _____. Maximum ascent rate is 30' per minute.
48. Localized joint pain, itching, and paralysis are common symptoms of _____. *Precautionary Decompression Stops (Safety Stops)* help reduce bubble formation and incidence of _____.
49. The absolute maximum sport diving depth is _____', in order to provide a safety margin to prevent occurrence of *DCS* and *Nitrogen Narcosis*. PLAN YOUR DIVE AND DIVE YOUR PLAN.
50. To calculate your _____ at depth, divide your *Surface Air Consumption (SAC)* in minutes (with a given size tank) by the pressure at depth in Atmospheres Absolute (ATA). So if an 80 cu ft tank gives you 120 minutes at the surface (SAC), it will last you 40 minutes at 66' (3ATA) where $120\text{SAC}/3\text{ATA}=40$ minutes at depth.