

Mix and Flow of Matter - Section 4.0 - Quiz

Many technologies are based on the properties of fluids.

Student Name _____

Class _____

4.1 Technologies Based on Solubility

1. A detergent is a substance that can remove dirt from different kinds of fabric. The **cleaning agent** in the detergent attaches itself to the dirt particles. It is called ...
 - A. detergent
 - B. suspension
 - C. surfactant
 - D. enzyme
2. **Phosphates** pollute the environment when they are present in large amounts. The reason they pollute is because they ...
 - A. make the water dirty
 - B. increase plant growth
 - C. kill fish and shrimp
 - D. remove the oxygen
3. There are many ingredients in detergents that have a very important role. This ingredient removes **protein stains**. It is called ...
 - A. a filler
 - B. a surfactant
 - C. a fragrance
 - D. an enzyme
4. '**SCUBA**' stands for ...
 - A. Special Cell Used By Aquanauts
 - B. Submerging Cubicle Used Below Air
 - C. Self Contained Underwater Breathing Apparatus
 - D. Submerged Container Using Breathable Air
5. When a diver has risen too quickly, the nitrogen in the body bubbles out of the blood and tissues, which can collect in different parts of the body causing extreme pain and eventually death. This condition, known as '**the bends**' is treated in a special pressure chamber. The chamber enables the nitrogen 'bubbles' to re-dissolve back into the blood and tissues. It is called a ...
 - A. bends chamber
 - B. pressure chamber
 - C. nitrogen chamber
 - D. hyperbaric chamber
6. **Dry cleaning** involves using a chemical that attaches itself to the dirt and then is removed. This modern day chemical is then reused over and over again (recycled). It is called ...
 - A. MONOTRI
 - B. TRICH
 - C. PERC
 - D. KEROSENE

4.2 Technologies Based on Flow Rates and Moving Fluids

7. A device that moves a fluid into or through something is called a pump. A pump operating in your **body** is your ...
- A. kidney
 - B. liver
 - C. spleen
 - D. heart
8. A **pump** that uses an upward stroke to suck the liquid in and then a downward stroke to force the liquid out is called a ...
- A. piston pump
 - B. diaphragm pump
 - C. Archimedes screw
 - D. pressure pump
9. A **computerized device** that cleans a natural gas pipeline with brushes, as it moves through it, is called a pipeline ...
- A. dog
 - B. pig
 - C. cow
 - D. rat
10. Valves are important devices used in any system for moving fluids. The **purpose of a valve** is to ...
- A. control the flow of a fluid
 - B. provide pressure for the fluid to flow
 - C. enable fluids to flow unrestricted
 - D. maintain fluid consistency
11. When you flush your toilet, a **valve** is used to make sure the tank doesn't overflow. This valve, that opens allowing water to enter and closes allowing water to leave the tank, is connected to the ...
- A. handle
 - B. toilet seat
 - C. brass ring
 - D. float

4.3 Designing a Working model of a Fluid-Using Device

12. The '**Trieste**' is an underwater ship that is designed to go extremely deep in the ocean. This type of submersible is called a ...
- A. submarine
 - B. SCUBA
 - C. bathyscaph
 - D. trencher
13. Fish can change their buoyancy naturally. This is done with a **special gas-filled sac** called a ...
- A. ballast
 - B. bender
 - C. buoy
 - D. bladder

14. When air is released in a submarine it is able to dive. This process enable the submarine to ...
- A. increase its buoyancy
 - B. decrease its viscosity
 - C. increase its density
 - D. decrease its pressure
15. Tanks, which fill up and empty with compressed air, enable a submarine to move up and down in the water. These tanks are called ...
- A. bulged
 - B. ballast
 - C. balloon
 - D. breakwater