

Question 27 (5 marks)

5

Describe the physical and chemical processes needed to purify and sanitise a town water supply.

There are five main stages included in purifying & sanitising a town's water supply.

1) Flocculation \Rightarrow This involves adding ~~to~~ aluminium sulfate into water, it will react to form $Al(OH)_3$, this traps the suspended particles in water & they gather together.

2) Sedimentation \Rightarrow This process involves ~~to~~ wait and allow the trapped particles to fall down into the bottom of ~~the~~ the tank, they are removed & water is passed on ~~to~~ to the next process.

3) Filtration \Rightarrow This process involves passing water into a filter containing sand & gravel. This effectively removes the ~~rest of~~ rest of the rest ~~of~~ particles, including microbes.

4) Chlorination \Rightarrow Chlorine gas is pumped to water in order to kill bacteria. ~~This is for the safety of~~ It ~~can~~ enables the water to be safe to drink.

5) Fluoridation \Rightarrow Fluorine gas is pumped into the water. It strengthens the strength of our teeth when ~~we~~ drinking such water.

Finally the water is tested again by chemists and they are transported to ~~the~~ ~~the~~ ~~the~~ homes in the town.