Filtering water to remove arsenic

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Membranes made using milk proteins can remove enough arsenic from tap water to bring it to within recommended safety limits for drinking. Heat and a low pH are used to convert a protein found in milk into nanofibrils. Amino acids on the surface of the nanofibrils can bind to metal ions including arsenic. In some areas of Peru the amount of arsenic found in groundwater has led to its concentration in drinking water exceeding safe levels by a factor of 100. Analysis of the water after treatment with the new system showed that 99.9% of the arsenic had been removed. The technology is cheap and has minimal energy requirements. Alternative methods for water treatment use reverse osmosis or exchange resins but these are too expensive for moderate-income countries.

Arsenic occurs naturally in rock and rock erosion can release it into water supplies
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1. What is potable water?
2. Describe how water is turned into drinking water in the UK.
3. Explain why reverse osmosis is an expensive way of purifying water.