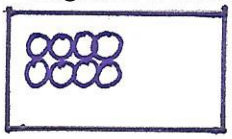
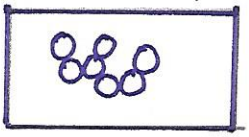
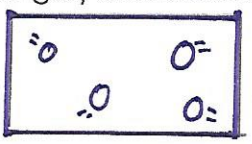
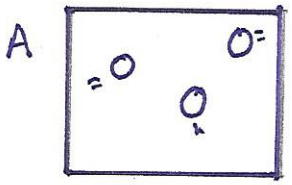
Science: How can you separate a mixture of sand, salt and water?
Answer these questions as you watch the lesson.

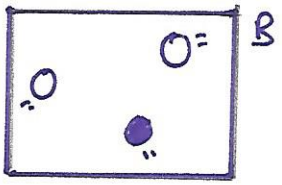
Q1) Look at the diagrams below. What state of matter (solid, liquid or gas) does each one represent?

Q2) Which of these two diagrams shows a pure gas? How do you know?

I know that letter ..... is a pure gas because .....





Q3) What is an alloy? Can you give an example of an alloy?

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Dissolving

Q4) A solid that can dissolve in a liquid is called a .....

Q5) The liquid a solid dissolves in is called a .....

Q5) When the solid has dissolved in a liquid it makes a .....

Q6) Draw the particle diagram for salt water below.

Soluble v insoluble

Q7) Draw lines to match the correct term, with the correct definition, example and method of separation.

term		definition		example		Method of separation
soluble		Cannot dissolve in a liquid to form a solution		Salt Sugar		Filtration or sieving
insoluble		Can dissolve in a liquid to form a solution		Rocks Sand		evaporation

Q8) Sugar is soluble in water. Will sugar dissolve in water?

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Q9) Give two examples of insoluble solids

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Q10) How can a soluble solid be separated from a liquid?

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Q11) How can an insoluble solid be separated from a liquid?

.....

Separating sea water

Q12) Which solid in the seawater was insoluble? .....

Q13) How was the insoluble solid separated?

.....

Q14) Draw a particle diagram below to represent the pure sand that was separated

Q15) How was the soluble solid separated?

.....

Q16) Draw a particle diagram below to represent the pure salt that was separated.