

7. Solutions

What is a Solution?

Lemonade, perfume, sea water, bleach, liquid soap, vinegar, all have something in common.

They are all **solutions**.

Notes: List 4 other solutions you have used at home.



We say a **solid** (or liquid), which forms a **solution** has **dissolved**.

Not all substances can form solutions. You are going to investigate the differences between some materials when they are mixed with water.

Collect: 4 test tubes solids labelled A, B, C, D
1 stopper
1 test tube rack
1 spatula

Notes: Copy the following table:-



Solid	Solid Left Behind?	Clear or Cloudy	Colour?
A			
B			
C			
D			

- Activity:**
1. Half fill a test tube with water.
 2. Put a half spatula of Solid A into the test tube.
 3. Stopper the test tube and shake until no further change can be seen. Place tube in rack.
 4. Wipe spatula with paper towel.
 5. Repeat steps 1 to 4 with B, C and D
 6. Look at the test tubes:-
Is there any solid left?

If there is some left is it more or less than you put in? If it is less keep shaking to see if it all dissolves.

Is the mixture clear (no bits in it) or cloudy (solids floating around)?

Is it coloured or colourless?

Use these questions to help you complete the table.

7. Draw the 4 test tubes as they appear now and briefly describe the experiment.

The solids you have tested which form **clear** mixtures are called **solutions**. It does not matter whether they are **coloured** or **colourless**.

Remember we say a **solid** (or **liquid**), which forms a solution has dissolved.

A substance, which **dissolves** is said to be **soluble** and one which does **not dissolve** is said to be **insoluble**.

Notes: Copy the above 3 paragraphs into your jotter.

Answer the following questions.

1. Which of the solids A,B,C,D were soluble?
2. Which of the solids were insoluble?

Using the words highlighted on page 20.

3. Describe the solution formed when a green solid dissolves.
4. Describe the solution formed when a white solid dissolves.
5. Describe the mixture formed if a purple powder was insoluble and it was shaken with water.

