Identify the mystery substances

This task is about testing with different solutions to identify four solid substances.

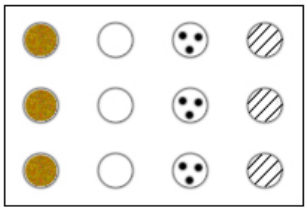
Part A

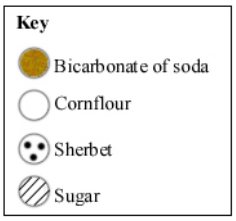
Set up a spotting tile with a small amount of each solid as indicated by the key.

Row A

Row B

Row C





Add 3 drops of the following solutions to the solids in each row and then write down the changes you see.

i) To row A add dilute hydrochloric acid.
ii) To row B add iodine solution.
iii) To row C add universal indicator solution.

a) Record your observations in the table below.

	Bicarbonate of soda	**Cornflour**	**Sherbet**	**Sugar**
Hydrochloric acid				
Iodine solution				
Universal indicator				

Part B

- Use your observations from part A to identify the unknown solids labelled W, X, Y, and Z. The solids could be bicarbonate of soda, cornflour, sherbet, sugar, or a mixture of two of these solids.
- Set up your spotting tile as before, with unknown solids W, X, Y, and, Z in each column.
- Add 3 drops of dilute hydrochloric acid to Row A, 3 drops of iodine solution to row B, and 3 drops of universal indicator solution to Row C.

a) Record your observations in the table below.

	W	**X**	**Y**	**Z**
Hydrochloric acid				
Iodine solution				
Universal indicator				

b) On the basis of your tests, identify the solids in the substances W, X, Y, and Z.

Substance W: _____

Substance X: _____

Substance Y: _____

Substance Z: _____

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