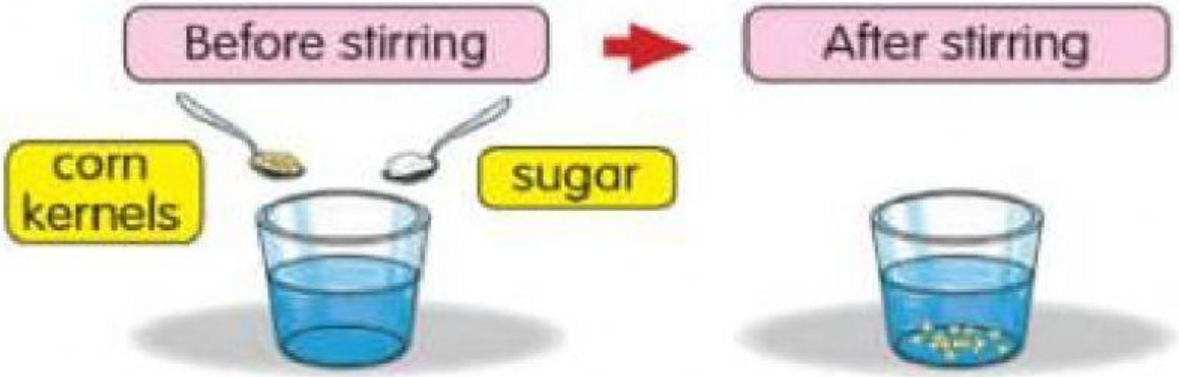
Soluble and Insoluble Materials

Nisa adds two materials into a glass of water and stirs.



Type your answers in the table and complete the questions.

Visible	Not visible	Dissolve	Do not dissolve
Salt	Green beans	Rice	

4. Record your observation in the table as shown below.

Beaker	Materials	Visible/Not visible	Dissolve/ Do not dissolve
A	Salt		
B	Green beans		
C	Rice		

Question

_____ dissolves in water. _____ and _____ do not dissolve in water.

Materials That Dissolve More Quickly

Situation 1

Which water can dissolve sugar more quickly?

I Investigate >> 1 Investigating the Solubility of Sugar in Hot and Cold Water

Apparatus and Materials

- cold water
- hot water (Caution)
- 2 beakers
- sugar
- spoon
- glass rods

Group Activity

Steps

1. Pour 200 ml of cold water into beaker A and 200 ml of hot water into beaker B.

2. Add one teaspoon of sugar into each beaker.

Type your answers in the blanks.

Cold **Hot**

3. Stir the water in both beakers at the same time.

4. Observe the sugar in beaker A and beaker B. Which dissolves first?
5. Record your observation.

Question

Materials can dissolve more quickly in _____ water than _____ water.

Situation 2

Why is the tea still not sweet even after sugar has been added?

I Investigate » 2 Investigating the Solubility of Sugar through Stirring

Apparatus and Materials

- water
- 2 beakers
- coarse sugar
- glass rod
- spoon

Group Activity

Steps

1. Pour 200 ml of water into each beaker.

Type your answers in the blanks.

Stirred Not stirred

2. Put one teaspoon of sugar into each beaker.

3. Stir the water in beaker B only.

4. Record your observation.

Question

Materials can dissolve more quickly in water if ____ (stirred/not stirred).

Situation 3

Why is this coffee still not sweet even though I've stirred it?

I Investigate >> 3 Investigating the Solubility of Coarse Sugar and Sugar Cubes

Apparatus and Materials

- water
- 2 beakers
- spoons
- glass rods

coarse sugar

sugar cubes

Type your answers in the blanks.

Big Small

1. Pour 200 ml of water into each beaker.

2. Add one teaspoon of coarse sugar and one cube of sugar into each beaker.

3. Stir the water in both beakers at the same time.

4. Record your observation.

Question

_____ (Big/Small) sized materials dissolve more quickly than _____ (big/small) sized materials.