

Year 5
(Entry into Year 6)
2 Hour Revision Course
Chemistry



NORD
ANGLIA
EDUCATION

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Lesson 1 – Grouping materials (1 hour)

Materials can be grouped together depending on their properties. For example, some are shiny, some are soft, and some are rough. Lots of materials are a combination of properties. Metals are usually shiny and hard, for example.

What happens when you squeeze moulding clay?

What happens when you put jelly in warm water?

What happens when you squeeze a saucepan?

What happens if you use a plastic ruler to carry electricity?

Match the words with their definitions and an example of each.

Hard

Dissolves in water

Saucepan

Conducts electricity

Carries electricity easily

Salt

Soluble

Difficult to change shape

Copper wire

Look at the words below and think about the properties each material has.

Steel fork



Table salt



Ceramic tea cup



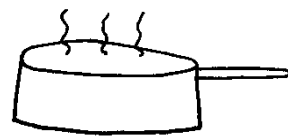
Coins



Book



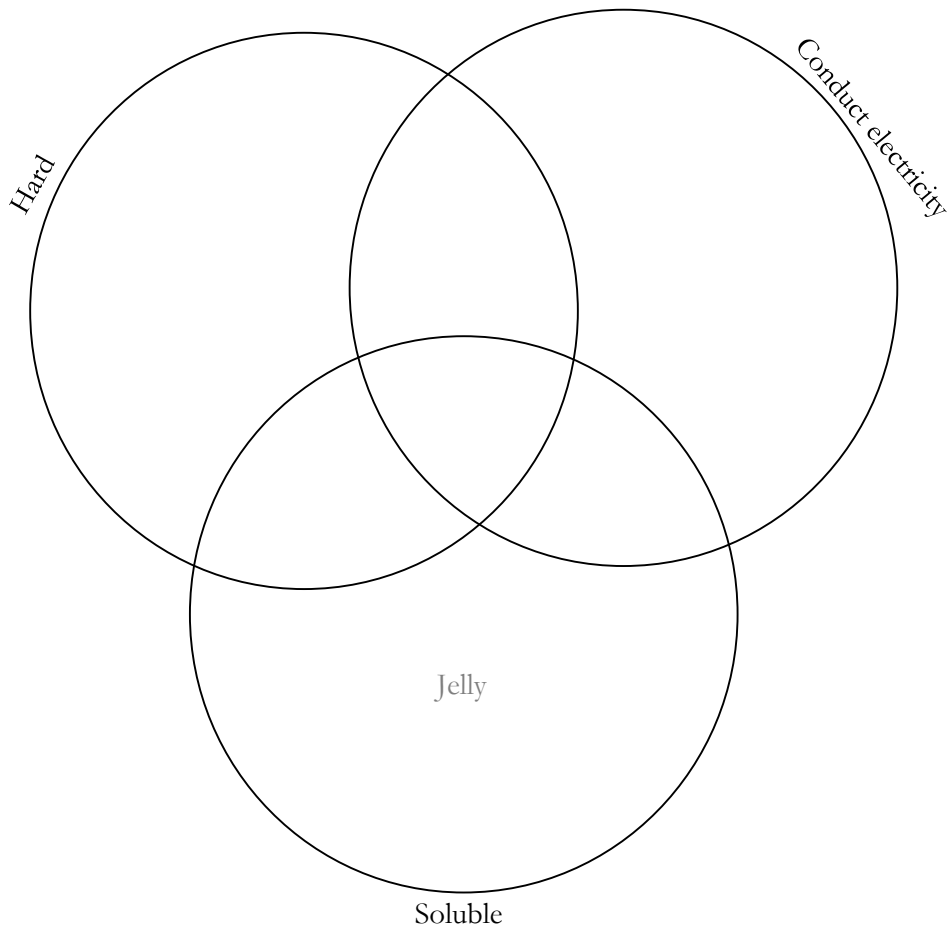
Saucepan



Now try to think about more items that you may find at home, and then try to think about their properties, e.g. *jelly which is soluble*.

Place these materials into the Venn diagram depending on their properties. Be sure to place them in the overlapping sections if they have more than one property, or outside the Venn diagram if they have none of the properties.

Jelly has already been placed for you.



Why is salt soluble but milk is not soluble?

Why are most metals hard but aluminium foil is flimsy?

Do all metals conduct electricity?

Are there any metals that do not conduct?

Are there any non-metals that conduct electricity?

Lesson 2 – Solutions (1 hour)

You are going to do an experiment to investigate which factors affect how quickly salt dissolves into water. The factors you will look at are water temperature and stirring. You need to follow the instructions as if you were following a recipe. Read the whole page before you begin.

You will need:

- 4 drinking glasses
- A spoon
- A timer
- Some table salt

Prepare 4 glasses as shown below. The first has cool water in it. You might want use water from the refrigerator rather than the tap. The second glass has warm water in it from the hot tap. The third glass has cool water but a spoon for stirring. The final glass has warm water and a spoon.

Hypothesis:

You need to make a prediction about what will happen. Delete the phrases to show your predictions.

It will take the same/a different amount of time for salt to dissolve in each glass.

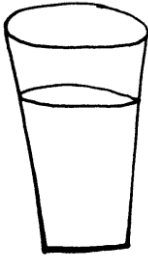
Stirring will have no effect/make salt dissolve more quickly/make salt dissolve more slowly.

Warm water will have no effect/make salt dissolve more quickly/will have no effect.

Method:

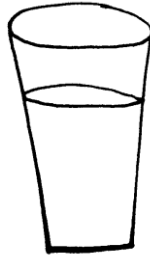
Dissolve one teaspoon of salt into each glass, one at a time. Use a timer to find out how long it takes each glass to dissolve one teaspoon of salt in the table on the next page.

1



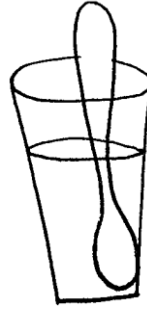
Cold

2



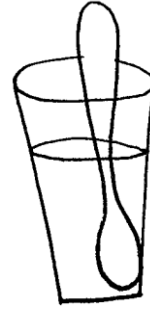
Warm

3



Cold + spoon

4



Warm + spoon

Results:

After the salt has dissolved in each glass, record the time in minutes and seconds.

Cold	Warm	Cold + spoon	Warm + spoon

Discussion:

Glass	1	2	3	4
Time				

Place the glasses in order of which dissolved the quickest to the slowest, and place ticks where the glass was warm or stirred.

Order	Glass number	Was it stirred?	Was it warm?
First			
Second			
Third			
Fourth			

Answer the following questions using full sentences.

Which glass dissolved the salt the quickest?

.....

.....

Which glass dissolved the salt the slowest?

.....

.....

Was your hypothesis (prediction) correct?

.....

.....

